# geek 411

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Artificial Life Programming > Technology Management > Computer Forensics > Game Programming > Network Engineering > Network Security > Software Engineering >
Web Architecture > Robotics and Embedded Systems > Digital Animation > Digital Art and Design > Digital Video > Game Design > Game Art and Animation

# FALL 2007 RELEASE

## FEATURE STORIES

# BACKGROUND on UAT

The University of Advancing Technology (UAT) is a private college for techno-geeks that merges the values of the traditional academy with the modern technology campus, a fusion that enhances our ability to fulfill the mission of educating students in the fields of advancing technology to become innovators of the future. UAT students attend a technology-infused campus located in the Valley of the Sun, a setting that promotes learning, collaboration and technology in ways that model the future of private college campuses. UAT is an ideal environment for students who value their own uniqueness and the power of technology in education. The fusion of the traditional academy and the technology college results in a geek-friendly university with a unique, techno-centric campus culture that is both non-exclusionary and focused on Year-Round Balanced Learning, an educational methodology that ensures students achieve their academic goals in a shorter period of time than traditional colleges. UAT is at the forefront of developing academic programs that tend to be unique among academia or emerge years ahead of other schools, such as Artificial Life Programming and Robotics and Embedded Systems, as well as our established game development majors that merged artistic and programming aspects long before other colleges chose that focus for themselves. UAT's academic programs deliver a general education foundation and a humanities-based approach to technology education.

## BACKGROUND

UAT is a private university with a deep focus on academic excellence and technology education. The University is nationally recognized for its Year-Round Balanced Learning program and innovative technology degree programs.

## ACCREDITATION

UAT is a senior college accredited by the Accrediting Council for Independent Colleges and Schools (ACICS). UAT is a candidate with the Higher Learning Commission and an affiliate of the North Central Association. UAT was recently designated as a National Security Agency (NSA) Center of Academic Excellence in Information Assurance Education, one of 86 instructional centers to be so designated nationwide.

## STUDENTS

The University student body is comprised of more than 1200 students coming from all 50 states and six continents.

## FACULTY

The University supports 64 full- and part-time faculty members who are leaders in both industry and education.

## LOCATION

Tempe, Arizona (Phoenix Metropolitan area)

## 2008 TUITION

Undergraduate tuition: $8400.00 per semester
Graduate tuition: $5100.00 per semester
For more information on UAT Tuition please visit www.uat.edu/tuition

## FAST FACTS

**Average Class Size:** 15
**Student-to-faculty ratio:** 14:1
**Average Incoming GPA:** 3.1
**Average SAT Score:** 1605
**Average ACT Score:** 23

## ALUMNI

UAT produces graduates who go on to great success with some of the country's largest companies, game studios and production houses. Companies such as Intel, Microsoft, Blur Studios, Sony Online Entertainment and Motorola have hired UAT graduates. Visit www.uat.edu/careerservices to see who has hired UAT alumni.

The University of Advancing Technology is accredited by the Accrediting Council for Independent Colleges and Schools (ACICS - 750 First Street, NE, Suite 980, Washington, DC 20002-4241, 202-336-6780) to award associate's, bachelor's and graduate degrees. The Accrediting Council for Independent Colleges and Schools is a national accrediting agency, recognized by the United States Department of Education. ACICS's accreditation of degree-granting institutions also is recognized by the Council for Higher Education Accreditation (CHEA).

The National Centers of Academic Excellence in Information Assurance Education (CAEIAE) Program is an outreach program designed and operated initially by the National Security Agency (NSA) in the spirit of Presidential Decision Directive 63, National Policy on Critical Infrastructure Protection, May 1998. Additional information regarding the National Centers of Academic Excellence in Information Assurance Education Program may be obtained by contacting the Public and Media Affairs Office at (301) 688-6524 or by email at nsapao@nsa.gov.

# ASK A UAT STUDENT

they're teaching. You can approach them and they will know you and recognize you.

> "The instructors at UAT are nothing like any other teachers that I've experienced."

You can get extra help when you need it. They are glad to sit down and go through an assignment until you understand it.

**James Powers**
**Class: Junior**
**Major: Game Design**
**Hometown: Carlisle, PA**

## Q. WHAT'S YOUR FAVORITE THING ABOUT UAT?

The instructors at UAT are nothing like any other teachers that I've experienced. You can go ask them about an assignment or you can talk to them about something you just saw in the news. Just like talking to a peer.

Also, the instructors actually know the subjects

READ MORE STUDENT Q&A AT
www.uat.edu/askastudent

# UAT IN THE NEWS

Read more UAT news at www.uat.edu/news

## UAT STUDENTS AND PROF DO THE SHMOO

What do you get when you put more than 1500 of the world's elite hackers in one place to discuss cutting edge issues and opportunities in network security? ShmooCon, the only techno-security conference that guarantees "Less moose than ever!"

This year, UAT robotics professor Ryan Clarke's paper, "Extend Your Code into the Real World," was selected from more than 300 submissions as a topic for a breakout session at the prestigious Washington, D.C. event. The presentation was designed to give the audience a glimpse into just how easy it can be to build cool projects from a "where to start" point of view. Accompanying Professor Clarke were UAT students and alumni Daniel Scarberry, who participated in the ShmooCon labs working with the network monitoring group.

Ryan's presentation included the conference's first ever in-talk live hacking challenge. For this challenge, Professor Clarke set up a wireless network he built from hardware that was connected to a server that people in the audience could log into and hack through a protective page to turn on a blue police light and strobe during his presentation. An audience member was successful and won the grand prize – a tote bag chock full of UAT schwag!

## DC480 GROUP SCALES NEW HEIGHTS IN L.A.

Nine members of UAT's DC480 network security group went to the Southern California Linux Expo (SCALE), February 9 -11 in Los Angeles. The three-day conference featured speakers, exhibitions and plenty of networking for students and professionals in the Linux and open source communities. Session topics in network management and business operations ranged from products using Linux and other open source apps to bridging the gap between Windows and open source to backing up web applications.

But, it wasn't all work and no play. Students and teachers alike piled into a van and hit the tourist trail to check out Beverly Hills, Sunset Boulevard, Santa Monica Pier and the Hollywood Walk of Fame. Their biggest conquest was finding the famous Hollywood sign one night after a six-hour search. (It's not lit at night … We know that now.)

DC★480

How eight UAT game development seniors and graduates landed their dream jobs

*find yourself*
www.uat.edu/thq

Eight UAT game development seniors and graduates have landed their dream jobs as quality assurance (QA) testers and technicians with international gaming giant, THQ, Inc., a Los Angeles-based developer and publisher of interactive entertainment software with worldwide offices located throughout North America, Europe and the Asia-Pacific Rim. The company recently opened a quality assurance facility in Phoenix and selected UAT as one of its preferred schools to scout for talent to staff the new branch office.

The eight UAT students were selected from an extensive pool of applicants from top technology schools throughout Arizona. John-Paul Clifton, Drew Danielson, Josh Gertz, Travis Hicks, Adam Kalik, Daniel Prince and Matt Stoner were hired as testers, and Ryan Cashman landed the job as a QA technician.

The students were chosen for their technical expertise, but, more importantly, because of their organizational skills and their ability to effectively communicate the issues and glitches they discover to all members of a game's development team and to management at every level of the company.

"This job takes patience, persistence, ambition and a love for the video game industry," said Matt Stoner. "UAT has taught me how to be persistent and really push for something I want."

All the new hires agree this is a fantastic opportunity to break into the highly competitive gaming development industry and get valuable real-world experience to complement their educational credentials.

"This is undoubtedly the best opportunity I will have to get my foot in the door," said John-Paul Clifton. "I'm learning a lot about the industry from the inside. It's really preparing me for my future in the gaming industry and to know what to expect when a game is going through the different levels of production."

Looking toward the future, Matt would like to use his experience to advance into a production management position. John-Paul is planning to eventually transition into the art department as a visual art director, while Josh Gertz sees himself in project management.

"I am a positive person," said Ryan Cashman. "I know if I work hard, put in my time and earn my stripes, something amazing will present itself to me. But I can't think of anything else I would rather be doing at this moment in my life."

You spent a few pleasant and challenging hours strapped into the cockpit of a highly modified vintage fighter plane, blasting your way through a horde of unfriendly combatants while desperately clawing your way to a remote military supply island. You have momentarily been transported to another realm, a world and time controlled by greedy corporations and corrupt governments. Along with your valiant crew, disgusted by the constant oppression on all sides, you fought diligently, but soon came to learn things aren't always as they appear …

Welcome to Vela 7, a classic arcade-style first-person shooter with a heavy dose of modern, artistic and technological innovations. Vela 7 isn't the latest from EA, Sony or Activision, although you may soon find its developers collaborating or competing with the best of these companies' design teams. Vela 7 instead represents the joint efforts of two programmers, two digital artists and one concept artist, all students of UAT.

"We started the project from nothing but ideas in May 2006," said Justin Walsh, Vela 7's project leader, UAT graduate and currently a private consultant doing contract work for mega.net. "I did the usual project lead stuff like organizing project meetings, focusing brainstorming sessions, coordinating with IT and various other UAT staff in addition to engineering a game engine, coordinating the art and programming efforts, designing custom tools and programming like a mad scientist to get it done."

"The features that are the bread and butter to Vela 7 are the camera system and the gravity shield. The camera system allows for 2-D game-play from more than just one view. Traditionally, a shoot-em-up is going to be in a side scrolling or top down view the entire game. We decided to build our game in 3-D and mimic a 2-D arcade style of play, allowing our camera to have multiple game-play views. The entire camera system is tied to the game, so the levels are designed with the camera switches in place, allowing for more cinematic elements to

be introduced into a genre typically void of such things."

"The gravity shield is by far the most powerful tool in the game. The idea was to develop a weapon that could be used for defense as well as offense. You are able to use the gravity shield to absorb enemy fire or return that same enemy's fire just as easily. We first prototyped the gravity shield in a simple stand-alone project and decided we liked it so much we beefed it up and ported it into the game. From that point, numerous tweaks and testing rounds gave us exactly what we wanted: a weapon that a novice can easily use for defense, and a pro can easily use for offense."

Doug Kavanagh, Vela 7 3-D artist, largely tasked with environmental modeling and texturing as well as some of the vehicles for the game, summed up the pace: "It was non-stop, just going flat-out like crazy! We all had to wear different hats during the process, and I had been told by a few people that a group effort is definitely something that will give you experience you will need in the real world."

Josh Stribling, lead programmer, UAT grad and now currently working at Rainbow Studios as a game engineer for an unannounced Wii action/adventure title, added, "Due to the small size of the team, everyone had to get their hands dirty on so many different levels and the words 'that's not my job' were entirely unacceptable, although we had a great team, so that was never an issue anyway."

"You learn more from independent projects, working hands-on without instruction, than you do from any classroom, although I would not have had the opportunity to work with such a talented group like ours had I not attended UAT."

Team members were full of sound advice for those aspiring to break into the gaming world. From Kavanagh, the recipe is decidedly simple: "Be relentless! UAT will provide you with the tools and hardware, but it's entirely up to you to seek out the

information and train yourself. Find others who are dedicated to their craft and learn from each other. It may be tempting to jump into a mod project without having any skills, but be prepared to focus on learning applicable skills rather than managing people. Everyone is an ideas guy—few of those people get in the industry and even fewer actually start in those roles."

Stribling added that "aside from projects, anyone interested in getting into gaming should 'know' 3-D mathematics (Vectors, matrices and quaternions), C++, C# and be familiar with at least one scripting language (such as Lua) to the extent of implementing it into an engine, understanding how it works at a lower level, as well as where and when to use it. Mods typically won't cut it."

From Walsh: "My advice to fellow students is that school is only the bare minimum. If you truly love games and game development, you need to step out of the teachings and do large amounts of research on your own. My experience at UAT allowed me to meet fellow students who had a passion for making quality games and my professors encouraged me to do additional research on the things that interested me."

Kavanagh further noted that anyone getting into this industry needs some pretty thick skin. "If you can't take constructive criticism, you'd better learn how really quick or you'll find yourself sitting in the wrong field."

To get your chance at climbing into the Vela 7 cockpit, visit www.uat.edu/vela7.

**Did you know...**

Vela 7 presented to employers at the 2007 Game Developers Conference in California

## THE VE LA7 TEAM

**Justin Walsh**  When not otherwise occupied with jousting on razor scooters at Toys-R-Us, Justin is studying the latest computer graphics techniques or coding up a blazing inferno of amazing C++ code.

**Josh Stribling**  In between battling nasty Unix scripts with vi, and writing intense queries to scrape data from Oracle, Josh likes to escape to the peaceful realm of C++ where all of the real magic happens.

**Andrew Morris**  A passionate traditional and 3-D artist with several years of experience producing game art. He started producing art for game modifications at the age of 15.

**Doug Kavanagh**  While not lost in the endless worlds of Hello Kitty Island Adventure, Doug produces exceptional game assets for Vela 7 and works on his portfolio.

**Ron Conley**  Ron Conley is a freelance illustrator hailing from Columbus, Ohio, where he received his B.F.A. in Illustration from the Columbus College of Art & Design.

# Geek411 takes a look at Micro-Blogging & Texting, Twitter Style

# Text Messaging to the Extreme.

## ForeverToday

### Oh no!, this guy just closed a woman in the bus door!

25 minutes ago from txt

With Others | Previous

I just looked for a basketball on BestBuy.com. Wonder why THAT didn't work? :) 03:03 PM July 21, 2007 from web

This is not a complicated route. Get it together, yes? 11:46 AM July 20, 2007 from txt

Stuck in traffic on North King. 02:46 PM July 19, 2007 from txt

I wish Simon Cowell did therapy-style talk shows. 08:36 PM July 18, 2007 from txt

I feel like a wisened elder. *nods* 09:15 AM July 16, 2007 from Netvibes

Okay, I think the worst is over. *slides back out from under bed* 08:55 PM July 15, 2007 from Netvibes

I HATE THUNDERSTORMS!!!!!! 03:50 PM July 15, 2007 from Netvibes

Olesen and I didn't get along as poorly as I remember. Just goes to show, don't trust my memory. 01:03 PM July 14, 2007 from Netvibes

My patience does not come with a lifetime warranty. 02:26 PM July 13, 2007 from txt

Why does the Hampshire Mall depress me? 12:19 PM July 13, 2007 from txt

"What you've got is a mother-in-law without a husband." 02:40 PM July 09, 2007 from txt

"You're haunting this house with your whiteness." 09:22 PM July 08, 2007 from txt

Feeling better than I have in weeks. 04:46 PM July 07, 2007 from Netvibes

Sometimes I'm like the male equivalent of Julie Cooper. 02:02 PM July 07, 2007 from Netvibes

My floor is vibrating. For little computer speakers, these things are GOOD. 08:35 AM July 07, 2007 from Netvibes

I feel like I haven't slept since the Clinton Administration. 08:17 PM July 06, 2007 from Netvibes

RSS Feed | Older ~

### About ForeverToday

Name: Rob
Bio: If I don't know you from somewhere else, don't bother adding me; you'll just get blocked.
Location: Northampton, Mass.
Web: http://forevertoday...
Joined: Mar 10 2007

Following: 1
Followers: 3
Favorites: 1
Updates: 410

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TWEETS

**Is your inner techno-geek hungry for the next leap forward? Are you bored with MySpace but want to stay connected? Are you frustrated by the lack of options with text messaging? There is hope and its name is Twitter.**

Twitter is the latest innovation in social networking, with a growing legion of followers. Twitter is a free service that blends text messaging and blogging into an exciting hybrid that allows you to send brief, 140-character messages from your cell phone, instant messaging platform (AIM, Google Talk) or your profile on Twitter.com. These text message posts have become known affectionately as Tweets. Your message is blasted to your friends' cell phones, instant message services and Twitter pages. Twitter even allows you to post an update on your MySpace page from your cell phone. Your posts are on display on your profile with your bio and picture. If you choose to make your profile public, your posts will be broadcast to the masses on the public timeline on the main Twitter page. This new sensation has quickly become known as micro-blogging among the intelligentsia. What sets Twitter apart from many other social networking services is the seamless blending of cell phone and Internet-based communication platforms. Translation: constant contact with your friends in real time. No more waiting to get back home to update your MySpace after a concert.

The pioneer of blogging technology, Evan Williams, and the creator of Twitter, Jack Dorsey, launched the service last year with the simple goal of taking text messaging to the next level. Twitter went from side project at the San Francisco dotcom company, Obvious, to social phenomenon at this year's South by Southwest Interactive Conference in Austin, Texas. SXSW is one of the largest live music festivals in the nation and began in 1987. In 1994, SXSW expanded to include a film and interactive festival. The SXSW Interactive Festival has become an internationally acclaimed showcase for tech innovations from blogs to gaming. SXSW was a fitting place for Twitter to begin its battle to transform communication as we know it with one simple but ever-present question, "What are you doing?"

## Remember, with the restriction to 140 characters, brevity is key.

Twitter is especially intriguing from a web development perspective. Web developers have the opportunity to use the site's API to create original Twitter tools. There are java scripts available for many of the service's features as well. Twitter community members have developed a Twitter Fan Wiki that is a clearing house of information regarding Twitter and has ample geek-oriented technologies for you to explore, including laundry lists of applications for Mac and PC. Several sites have sprung up in response to Twitter. Twittervision.com takes a Google global map and links in with the public profile to offer a real-time visual perspective of the posts from Twitter community members. Twitterholic.com observes and records the top 100 posters with the largest followings, friends and posts. The majority of the top performers are news services such as the BBC and the New York Times.

Since its debut, Twitter has provoked a furious debate amongst bloggers, techies, the media and the "Average Joe" consumer. Why such contention? The recognized authority on blogs on the Internet, Technorati.com, which is currently monitoring 75.2 million blogs worldwide, reports close to nine thousand posts on the subject. Scores of articles have appeared in newspapers, magazines and journals across the globe. Why such a conflagration of opinion? Twitter asks what you are doing but the real question and the ground zero of the controversy is, "Do I want to know what you are doing all the time?"

Increasing terrorist activity has caused many to step back and review how information is distributed during a crisis or emergency. It seems as though no place is safe from threat. The national mood is that schools and places of business need to prepare for the worst while hoping that those procedures are never used. Could Twitter be the solution? Most people have cell phones today. Text messaging technology is more reliable than Internet connections and, with the apparent lack of information flow during recent crises, perhaps the lesson learned is that during a crisis situation the priority is to get the proper information to the individual in the most danger, with the greatest speed. In response to the demand for a more effective and efficient means of communication during crisis events, the University of Advancing Technology is undertaking a campus security study that will examine using a service such as Twitter to instruct students and faculty members during a crisis. The University of Advancing Technology has pledged to make this study public to continue to make America's places of learning safe and secure.

**Did you know...**

UAT is open to students 24/7

**twitter**

# RENOVATE TO INNOVATE

ARTIST'S DEPICTION OF FOUNDER'S HALL
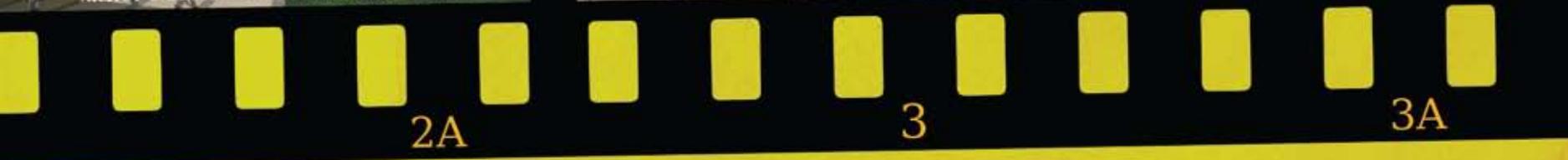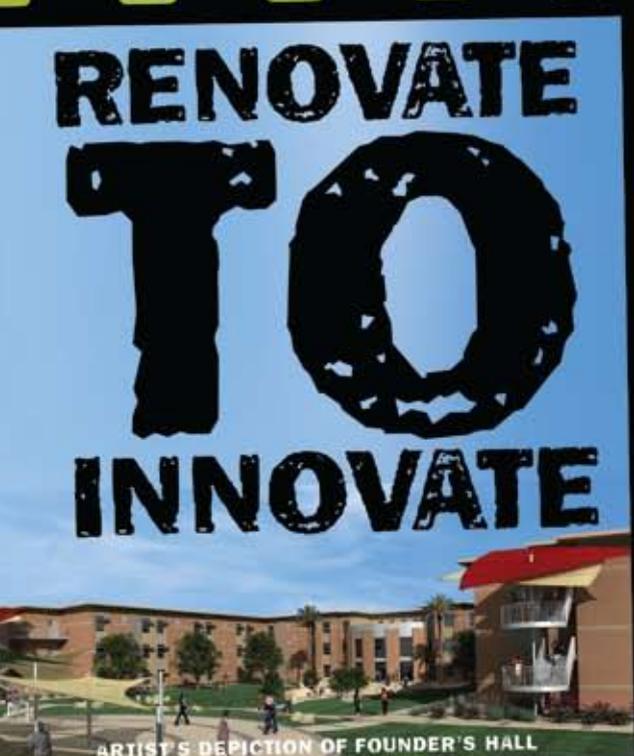
The UAT campus has plenty of places to eat, study and socialize with classmates and teachers. It also offers off-campus housing within walking distance of the school. But for some UAT students, that just wasn't enough. They want to be on campus 24/7. They want ALL GEEK - ALL THE TIME.

The voices of our students (and parents) have been heard! Founder's Hall was built and the first student-inhabitants just moved in.

Think of it as Dorm 2.0. We threw out the old blueprints and boundaries – no long, dark corridors, institutional-gray walls or smelly community bathrooms here. Instead, it's a radical new kind of residence hall totally designed with geek in mind.

We thought of everything. Each room has been equipped with a phone jack, a microwave, small refrigerator and both wireless and plug-in Ethernet connections. The sleeping rooms are grouped in sets of four, so residents only share a bathroom with a few other people, not the entire floor.

And since even the most intrepid hacker occasionally needs to eat, exercise or just kick back and defrag for awhile, Founder's Hall is equipped with a game room, fitness center, movie room, lounge, think tanks, laundry facilities and an extended-hours kitchen.

Of course, student health and safety was of primary concern, and for this reason Founder's Hall is completely drug and alcohol free, and smoking is prohibited in the building. The hall is only accessible to residents with a keycard, and guests must register at the front desk. The hall director lives on-site and resident assistants live on each floor to ensure these policies are observed and that agreed-upon community rules are respected.

Check out uat.edu/foundershall for more info.

They seldom smile at the NSA. Can you make them grin?

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"I was 8 years old when my parents took me to see *Close Encounters of the Third Kind*. When you're a kid, you watch movies and you watch TV and you think 'yeah that's cool' but your brain doesn't process that human beings made this. It's just something you consume and enjoy. You just don't have a concept of the process. But when I saw *Close Encounters*, the movie just really affected me on every level. It was awe-inspiring in terms of the visual effects, and it had great emotional content. I became aware of the acting, the writing and all the artistry that went into this film, and at the end, the credits said 'film by Steven Spielberg.' I said, "That's what I want to do. I want to do what that guy did.'" From that day on, Paul DeNigris continued to pursue his passion, earning a degree from the University of Buffalo, then working on several film projects and a stint as an animator at Phoenix-based video game developer Rainbow Studios and finally joining UAT as an instructor in 2002.

"The filmmaking program was pretty new when I started. There were only a handful of classes. But UAT has been very generous in providing the resources to develop some cool classes and get some state-of-the-art equipment. That's the most important thing. You can't run a great digital video program without good equipment."

Paul has continued to explore his interest in writing, directing and making films while teaching at UAT. He completed his first feature film, *The Falls*, which debuted at the 2004 Phoenix Film Festival.

This year, his hard work and determination paid off big time with the 2007 Copper Wing Award for Filmmaker of the Year, from the Phoenix Film Foundation. The Copper Wing Awards acknowledge the best picture, director and actors from Arizona state and abroad.

With contributions to five films in the festival—"Stabbing Stupidity" and "The Long Shot," which he directed; "Netherbeast Incorporated" for assorted visual effects; and "Peephole" and "Pirate Booty" as instructor and consultant—DeNigris was not counting himself out as an award-winner entirely, but he didn't consider himself a serious candidate for the ultimate prize.

"Really, I had kind of worked myself into thinking that it wasn't going to happen," he explained, in "complete shock" when his name was read. "And it was especially nice to get it this year because I was surrounded by my students."

Paul said that to get to the award-winner level, he encourages his students to learn all facets of filmmaking and to try out different roles of the processes.

"I always tell my students that, in order to be the most balanced filmmaker you can be, you need to learn both sides of the equation: Everything from the story, to the actors, to the lighting, to the production design, and everything that happens in front of the camera. So even if you aren't the visual effects person for that film, you can speak that language and you know how to communicate your vision to someone who can make that happen in post-production so that you don't have to cut that part out of your story just because you can't figure out how to do it on camera."

Although Paul's experience runs the range from screenwriting to cameraman, he says that, of all the creative and technical aspects of filmmaking, he enjoys the challenges of post-production the most.

"When it comes down to it, I really do enjoy that part of it. I occasionally do post-production work for other filmmakers, and even if I am not the auteur behind the rest of it, I take a lot of enjoyment in creating something that is completely original and completely new, something that wasn't there.

"It's the subtle things. Some of the work that I did for the film festival is so simple and it goes by in one frame. For example, the flash that comes out of a muzzle from a gun that misfired; it is one of those things that when you look at the before and after, you go 'Wow that's really cool.' But it goes by in one twenty-fourth of a second. No one even realizes there were any visual effects there. That's cool."

Paul says his passion for post-production is reflected in his students' work, too.

"One thing I hear a lot from industry people is that when it comes to post-production, the kids from UAT are where it's at. To me it is all part and parcel what it means to be a filmmaker in this day and age because if you are using digital tools then everything can be part of your palette. It's everything you can do with those pixels of the image, frame-by-frame in post-production. All of that needs to be a part of your story and how you tell that story. That's one of the most important things, plus using your tools through all facets of production enables you to take shortcuts to do things cheaper, faster and more efficiently.

"I hold up Robert Rodriquez as an example of that mindset. He is a very forward-thinking individual in terms of digital cinema, and he is one of the filmmakers I consistently point to throughout my curriculum because, if you watch any of his behind-the-scenes documentaries for any of his films, he's the boss. He's so geek. He is totally in love with his technology and he is like, 'Look at this cool stuff I can do. Let me share some of this neat stuff and here is a piece of equipment and I have the really expensive version but you can go and buy the cheaper version and do the same thing at home.'"

Paul says he is impressed with the quality of his UAT students, both in terms of their technical acumen and their creative capabilities as well.

"The thing that consistently impresses me about my students is that I can throw ideas at them no matter how outlandish they are. I can throw out something completely outside the box - totally ridiculous suggestions - and we will go and turn them into something like 'Pirate Booty,' the student film that was in the film festival. Some of that stuff comes from me just going to them and asking, 'What if you guys just did this? Ok, this is a crazy idea but see if you can work this in.' They consistently surprise me. They find ways to take some of those really ridiculous things that I throw out there just to spark the creative process and they go, 'Oh yeah we can do this. Let's work this into our piece and make it happen.' I think that speaks to the character and quality of the students at UAT, particularly in the Digital Video program. It runs through the entire curriculum, even outside their Digital Video classes. They are really absorbing that focus that we have here on not just learning but thinking. You can throw a monkey wrench into their work and they can adapt and incorporate that into their work and make something really cool."

Filmmaker of the year.

Paul DeNigris

SOUND
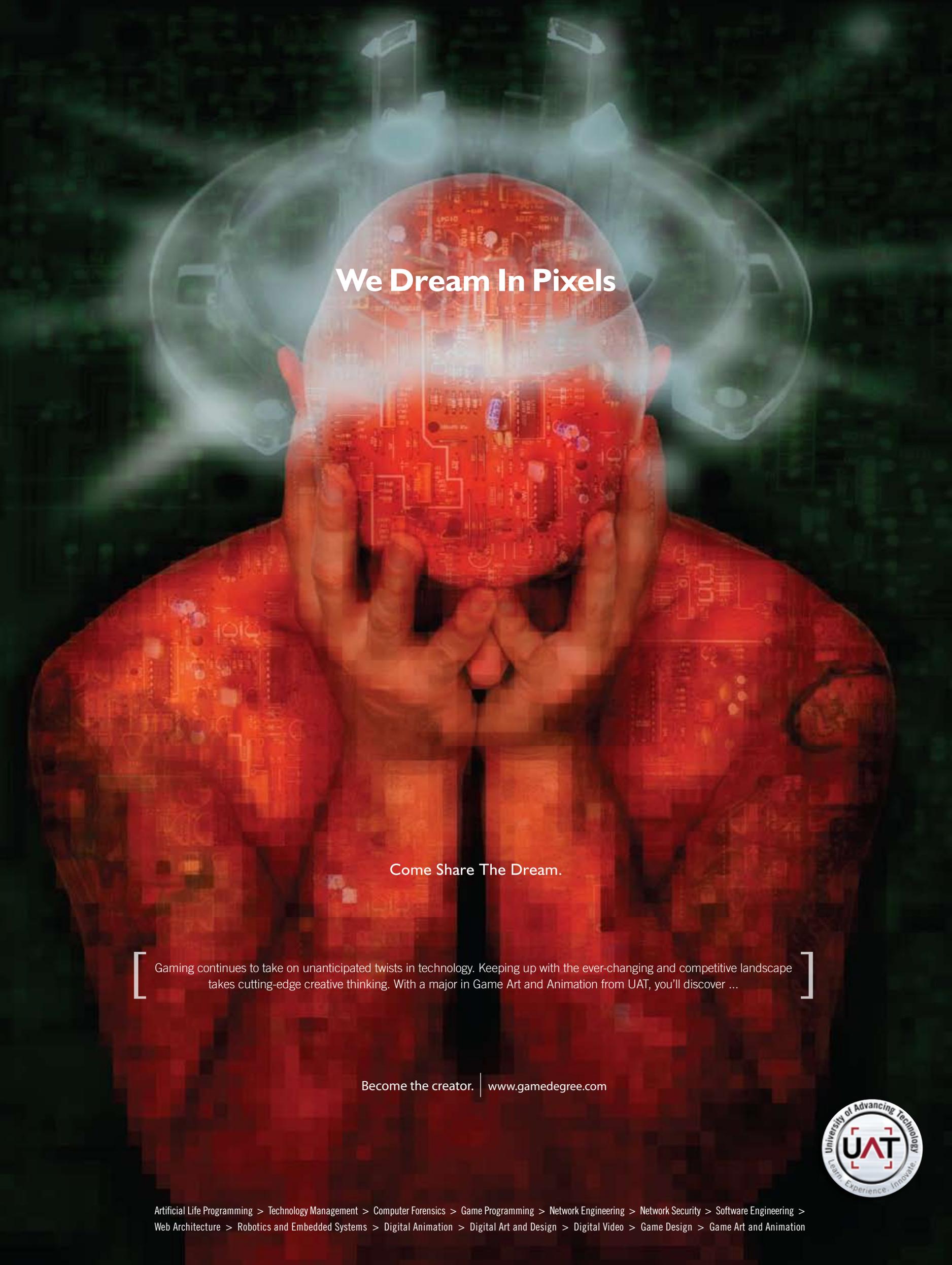
# student blogs

## Christopher's Blog

I'm from all over America including Colorado and North Carolina. However, my last residence was Massachusetts. My major is Game Programming. I will graduate in 2010.

I decided to attend UAT because I've always wanted to create games and develop things. Ever since I was about 12, I was into mod creation and worked on them.

I feel UAT is unique because it offers the technology to make cutting-edge applications and materials. Also it has a large group of people who are interested in using them. At UAT I like how everyone is into what I'm into. I also like how easy it is to meet new people and the laid back atmosphere.

**Visit Christopher's blog at
www.uat.edu/meetchristopher**

## Nick's Blog

Greetings friends and fellow geeks of nature! My name is Nick Gilliland, and I am a game design major here at UAT. Just a little bit about myself: I am an Arizona native who loves his home state, and can't stand people complaining about the heat BECAUSE IT ISN'T THAT BAD. I am an avid fan of video games (as you could imagine), my ABSOLUTE favorites being *StarCraft* and *The Legend of Zelda* series, although I can play a mean *Halo* if challenged. At time of writing I am publishing my first novel, titled "Reaper Clan," so you'll want to be sure to pick that one up! I consider myself to be a good-natured individual.

**Visit Nick's blog at
www.uat.edu/meetnick**

## Dean's Blog

I am originally from Hartford, Wisconsin. My major is Game Design and I will graduate in 2009.

The main reason I decided to attend UAT is because, out of all of the schools I looked at before UAT, it seemed like the best place for me. What I think makes UAT unique from other universities is the lifestyle – it is so different, but I think it is the best. Just about everyone that goes to UAT has something in common with you.

What I like about UAT are the classes, students, teachers, and the fact that everyone is so friendly around here and willing to help you. In my spare-time away from UAT I enjoy playing *Gears of War* or *Resident Evil*, and I also like to draw. Some of the benefits of being a Student Ambassador are that I enjoy the hours and people I get to work with.

**Visit Dean's blog at
www.uat.edu/meetdean**

# For UAT Graduate Jessi Tosh, it wasn't exactly love at first sight.

Jessi would soon change her mind about her future husband, Errol Tosh, when she discovered his creative side in a film class taught by Raymond Todd Blackwood at UAT. As part of the coursework, each student prepared a film treatment to present to the class. The students then voted on which they thought was best and which production team they would like to join. The four most popular concepts were selected to be made into an actual film with the treatment's creator acting as the producer and team leader.

Although the students had the opportunity to wait until everyone in the class had presented, Jessi knew immediately that she wanted to be on Errol's team.

"His treatment was so funny and creative. I knew right away I wanted to be on his team. No one else got it, and no one else voted on the first round. I raised my hand even though we hadn't seen everyone else's yet."

That turned out to be a wise move. Errol's treatment proved to be the most popular choice, and he got more votes for his concept than there were places on his team. But since Jessi voted first, she was assured a now coveted spot.

Errol says his initial attraction to his wife was based on appearance, stating that she "always dressed really nice and looked really classy," but through their work on the film project team, he began to realize that there was a lot more to Jessi than just her looks alone.

"We were putting in a lot of hours shooting the film, and one night I said, 'Hey, anyone want to go out to dinner?' - even though I already knew everyone else was busy."

The two went out without the rest of their team for the first time, and once they were alone, it was clear they were meant to be more than just good friends.

"We connected so well and didn't run out of things to say," Errol explains. "What started as small talk just led to a deeper conversation. It jumped a level quickly. When you meet the right person, you feel like you've known them for a really long time."

After dinner, and what Jessi describes as an "awkward moment," Errol asked Jessi to continue the evening on their first real date to the movies.

"I haven't kissed another guy since then," says Jessi.

From then on, the two became increasingly insepa-rable. They continued to date throughout college and after their graduation in 2001.

"We got to the point where we didn't want to be apart anymore, so we made it official," says Jessi.

In 2004, the two were married in La Jolla, CA, re-turned to Arizona for a week of rest, then jetted off to their honeymoon in Kaua'i, Hawaii, for what Errol describes as "the best week of my life."

Now, after three years of marriage - in addition to Errol's full-time job as a multimedia content devel-oper and Jessi's job as a fifth grade teacher for the Scottsdale Unified School District - the two have started an entirely new venture.

Tosh Imagery, a Cave Creek, AZ, photography studio, was the inevitable result of mixing two intensively creative talents with the technical expertise the two learned at UAT.

"I started as a digital video major at UAT and I needed some textures for 3D modeling. I bought a digital camera and realized I enjoyed doing the stills more than the movies," says Errol. "UAT pro-vided me with the stepping stones I needed to switch my focus and then take my photography to another level."

"Linda LaGalia was my favorite teacher. She is dead honest and no fluff. I thought my first project for her class was a masterpiece, but I only got a C. Once she went through it with me and explained everything, I realized she was right. By the time I was done with the class, my skills had grown tenfold."

While Tosh Imagery provides a variety of commer-cial and personal photo services, Errol and Jessi quickly realized that wedding photography was the niche they both enjoyed the most and were best at doing.

"Our passion is weddings and portraits," says Errol. "It's up close and personal. We get so much satisfaction out of creating memories."

For some couples, too much time together causes friction, but for Jessi and Errol, working together has brought them closer together and made both their work even better.

"We enjoy spending so much time together," says Jessi. "We've known each other so long and know each others' style. It just all works so well. Me with the bride, him with the groom. Sometimes after a wedding, we will be going through the photos and discover we have even taken the exact same shot and it is something that is not obvious. I think we just have a similar attitude about everything and look at life the same way."

my first impression of him i would go outside with my friends after class and the guys would be playing hacky sack i remember him talking about how he had a boat and everything and i thought what a braggart
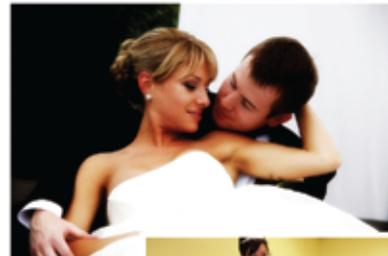
learn more www.Toshimagery.com

# BEAM
# THIS CAPTAIN KIRK

L ucky for us technology is moving at warp speed. Our parents were wowed by Dick Tracy's cool watch, the first cordless phones and the idea of television remote controls. They watched James Bond movies but didn't really believe that any of his toys would ever be theirs. You already know that's not true. Technology is moving fast. We're on to the latest and greatest: virtual keyboards and laser-projected images.

Companies across the globe are developing exotic technology tools that are surpassing Captain Kirk's "Beam me up, Scotty" to bring some of these science fiction technologies to affordable reality. The first is Microvision out of Redmond, Washington, which is one of the premier developers of laser projection technology. For more than 13 years they have been developing laser technology that uses hands-free displays for

the military to affix to helmets. But now, not just the soldiers get the cool stuff. Thanks to capitalism, we can, too.

The hard part in development of the laser projection technology was finding the right green beam. For a color image to be projected, you need a red, blue and green light source. Think back to Star Wars where R2D2 was broadcasting the image of Princess Leia calling for help, only this image is not a hologram but a laser-generated image projected onto a flat surface to appear three dimensional (think Minority Report) at the rate of 30 million pixels per second.

Red lasers are common in CD players and blue lasers are used in Blu-Ray and HD DVD players. But, it's the tiny green lasers

that were hard to find. Finally, two companies are making tiny greens – Corning and Novalux—so Microvision, and competitors like Texas Instruments, can move forward with the stuff that will stun your grandmother. By next Christmas 2008, Microvision will be selling a freestanding, iPod-size microprojector as an accessory that can be plugged into a video iPod or cell phone. They will be available to the public, and once and for all, you can show your mom that James Bond ain't got nothin' on you. Then, there's the virtual keyboard.

This uber device laser-projects a keyboard onto any flat surface. It's even accompanied by simulated old-school click sounds as you type so the business geezers will adopt them.  It has 63 keys and a full size QWERTY layout. And, it's ultra-portable because it's only 3-1/2 inches high. It can connect to PDAs, Smartphones and computers using Bluetooth.

Let your parents stay home and be enthralled with TiVO—now, you can roll and take your videos with you with your mobile video or an MP4Video Watch. And watch out. Once the cell phone giants get ahold of this stuff, sooner or later you'll be facing your mom in full 3-D life size asking you if you cleaned your room. These new watches have a 1-1/2" color OLED (Organic Light Emitting Diode) that is brighter and has a broader range of color than regular LCDs. Plus, it's capable of three hours of continuous playback, eight hours of music playback; it recharges in 1-1/2 hours and has a 1GB memory.

What will the future hold? We have entered a whole new frontier with robotics, embedded systems, artificial intelligence, and instantaneous globe-wide communications leading the way. Dr. William Maxwell, Professor of Thinking at UAT, says, "In my 78 years on this earth I have seen many changes, some social and even more technological. I am constantly amazed at the ability of the human mind to invent new technology. The achievements of this first generation of the 21st century will eclipse the most dramatic achievements of the previous ones. Today's youth have the ultimate advantage because the universal inventive ability is increasingly being cultivated at much earlier ages than in the past."

MP4 Video Watch

Virtual Keyboard

# RAYMOND TODD BLACKWOOD

## Q & A:

## NET SECURITY GURU

UAT IT Manager of Development Raymond Blackwood was recently selected as a contributing author for the new book *Techno Security's Guide to Managing Risks for IT Managers, Auditors and Investigators*. Blackwood's contribution is entitled "Wireless Awareness: Increasing the Sophistication of Wireless Users."

**Q:** What makes the Techno Security Guide unique?

**A:** We took the approach of identifying some of the most critical risks, threats and vulnerabilities and then discussing the countermeasures to address them. Some of the topics and thoughts discussed here are as new as tomorrow's headlines, whereas others have been around for decades but have never been adequately addressed.

**Q:** We hear all these horror stories about network security breaches and identity theft in the media today. How safe are we?

**A:** The news media makes it sound like everyone with the knowledge to access your network is out to steal your information. One of the things I have always despised is this whole notion of "Hackers are going to get you. Don't trust anyone. Hackers are going to break into your house and get all of your stuff." They make it seem like everyone is trying to hack into your network and that is just not the truth.

**Q:** So the average person is relatively safe?

**A:** What is the incentive to steal one credit card? Nothing! If they steal one credit card what do they get from the average person? Maybe $2,500? Most people do not have $300,000 in their checking account that can be swiped off of their home network. The people who do this want to steal thousands of cards at a time and sell them on the black market.

**Q:** So what's the solution?

**A:** I think the way to address it is not through fear, it's through education. We need to explain how to use technology wisely. What we as technologists really need to be thinking about is the consumer and their incentive to use technology. Most people who have a laptop don't even know how wireless works.

The approach I take is to explain to them, "You understand how the radio in your car works. Your wireless device is nothing but a radio transmitter. It is not that much different with computer technology." We, as an industry, find ways to talk to people about their wireless networks in a way that's non-threatening and easy for them to understand.

**Q:** Is it really that simple?

**A:** Networks will work better for everyone if we all practice basic security measures. You don't put a sign in your front yard saying "I've got a big-screen TV and a TIVO and our door is wide open." No. You lock your door. And you don't lock your door because you are expecting someone to break into your house, you do it because it is a smart practice. It's the same with your network.

Let's increase the sophistication of all the users and security will rise naturally. As the designers of the technology, as its engineers, it's not just our job to invent the technology, give it to people and then get mad when they find a different way to implement it than the way we like. Unfortunately, that's what we do. We invented wireless technology. We made it easy for people to use. We put it in their homes, and then we scared them to death about it.

**Q:** Any more new books in the works?

**A:** I am writing a book called *Geek: Becoming a Thinking Innovator (How to Survive UAT)*. It's my story of where I was in my life at the point when I first heard of UAT, my first job, the mission, the values and a whole bunch of legends and the myths and the lore of a whole bunch of people who I interacted with all the time. All the times I failed. The times I succeeded. How I got my job. What the hard lessons were. The real story of surviving at UAT.

LEARN MORE AT
www.netsecuritydegree.com
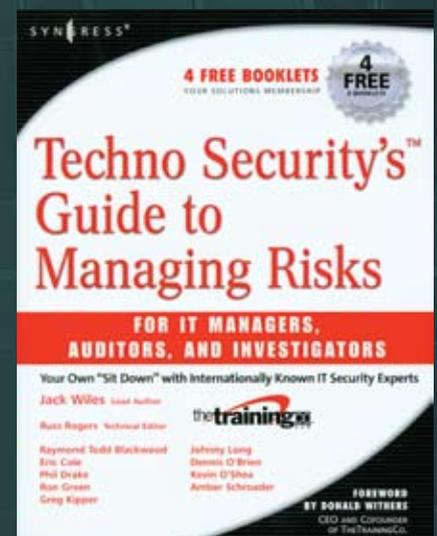
## ALUMNI PROFILE

# DANIEL SCARBERRY

**DANIEL SCARBERRY OF MORGAN HILL, CALIFORNIA, GRADUATED FROM UAT IN THE SUMMER OF 2006 WITH A DEGREE IN SOFTWARE ENGINEERING AND LANDED A COVETED JOB AMONG THE TECHNO-DIGERATI IN SILICON VALLEY. WE RECENTLY SAT DOWN TO TALK ABOUT HIS EXPERIENCES AS A STUDENT AT UAT AND WHAT IT'S LIKE NOW IN "THE REAL WORLD."**

### WHAT ARE YOU DOING NOW?

I just moved to the Silicon Valley to work for Juniper Networks as a network/sys admin. Not sure how to explain what I do… I work with routers and switches. I just know I love my job.

### HOW DID UAT PREPARE YOU FOR IT?

UAT offered me everything I needed to keep my mind active and creative. When I had an idea, I would put in a request for the people (talent/new friends) and the tools (pizza) to make it happen. UAT bought into the idea, encouraged me to do it and finally rewarded me with standing by my idea when it was completed. I don't remember too many assignments (or any assignment, come to think of it) where my teachers docked me points for doing an assignment the wrong way (a.k.a. my way). This helped me build confidence and creativity when attacking a complex problem.

### WHAT MADE YOU DECIDE TO STUDY NETWORK SECURITY?

In high school I dreamed of eating Twinkies and Ho Hos for the rest of my life while playing and coding video games. Somewhere during my first year at UAT, I got mixed up with the wrong crowd and ended up siding with network security kids. Boy, am I lucky.

### WHAT DO YOU LIKE TO DO IN YOUR FREE TIME?

My hobbies fall more inline with Linux geeks and security pranks. Most of my time before attending UAT was spent playing games on Linux and not Windows. Props to *Return to Castle Wolfenstein* for supporting Linux. This was a pretty large influence in keeping me booted into Linux. This could also possibly be a good excuse for saying video games can be educational… as long as they're played under Linux.

### ANY GOOD STORIES YOU'D LIKE TO SHARE?

At ShmooCon, one guy we met was jealous that we went to UAT. He grew up in Tempe (AZ) and went to a different school in Phoenix, soon after he transferred to Texas. To make a long story short, his school didn't work out, and now that he's met some UAT students at the Con, he couldn't believe how cool UAT was and how far UAT had come in the short period since he visited. He was impressed by the UAT faculty and the UAT students, both of which were in full force at ShmooCon.

### HOW WOULD YOU DESCRIBE UAT TO SOMEONE WHO HAS NEVER BEEN THERE BEFORE?

UAT is a complete success in my eyes. It is a smaller school but that isn't necessarily a bad thing. What's important is our reputation for energized and talented students. How could anyone knock a school with the most passionate students in their field? Passion leads to innovation. That's something really respected in Silicon Valley and the companies who call it home.

### WHAT ARE YOUR SOURCES OF INSPIRATION AT YOUR WORK?

I love Pixar's stuff and they're probably the greatest inspiration for me. Oddly enough, commercials, which I used to hate, have now become interesting to watch and draw from.

### TELL US ABOUT YOUR SUBMITTED WORKS: WHAT DID YOU USE TO CREATE THEM? WHAT INSPIRED YOU?

The 3D works were all created in Maya. The Robotech mech was done for an assignment in a class, the head was a self-portrait that was also done as an assignment, the hippy jack-in-the-box is being done as a character for an independent project. The 2D material was all done in Photoshop. Both pieces are personal projects done outside of school.

### WHERE DO YOU SEE YOURSELF IN 5 YEARS?

Working for a company doing computer animation. I know that sounds rather obvious, but I think it's hard to see where exactly I'm going to be in five years. I had no idea I would be here doing this five years ago, so I want to keep myself open to whatever life hands me in the coming years.

### WHAT'S THE ULTIMATE DREAM FOR YOUR LIFE?

Working at a job that I really enjoy and being able to support myself doing it.

# MEET NEW FRESHMEN

## RAYNOR BUGAYONG

Major: Game Design
Hometown: Yokosuka, Japan

The number of students at UAT is about the same as my high school. The big difference is that everything is upped and taken more seriously. The University is more geared toward real life. The professors here enjoy what they do and really help the students along. I am actually going to brush up on my Japanese by taking some classes here, and I am really excited to know the teacher has decided to increase the number of classes.

I have talked to a few of my friends at other schools and they are pretty jealous. Mostly because of the versatility we have with our classes and the scheduling we have, especially with the year-round learning. If I decide to go straight through my college career - which I am planning to do - I will be done in two or three years.

## JAMES SPAULDING

Major: Game Design
Hometown: Brockton, Mass

So far this year has been going great. I've made a lot of friends, gone to some fun events and started to become more active in the school. UAT is very different. You don't really get this feeling of full acceptance at other colleges. It's like a huge club here, where almost everyone has the same general likes and interests. There's just nothing like it. I've never even heard of other colleges allowing students to do what we do here. The Nerf Wars, LAN parties, the Commons—it's great to know I can walk into the school and have someone to talk to or something I can do.

After graduation, I plan to get a job in the game design industry, working for a company that makes games I enjoy. That's the whole point of my learning game design anyway. Why go through the effort if in the end I'm not doing what I want? In the long term I definitely would like to start my own game development studio, but I'll wait and see where I go with other companies first.

## CARRIE MARSHALL

Major: Technology Management
Hometown: Minnesota

My first year is going quite well. The people and the environment are awesome. You just don't usually get this many amazing people in one place at one time. It's great being surrounded by a bunch of people who know more than you do about a certain subject.

UAT is more like one big family than other schools – they have their sororities and fraternities and we have our computers. My friends back home call it a nerd school, but everyone knows the real term is geek.

I would eventually like to own my own Internet café but until then I just want to find a job I like.  My main goal right now is to discover exactly what I'd like to be doing ten years down the road.

Take the preliminary Geek Test and see where you trend on this partial Geek Scale. No matter where you rank, a UAT degree can help you transform into the type of geek you want to be in less than three years. UAT was created specifically for geeks like you who have intelligence and a passion for technology. It's a place to grow and refine the skills you've already developed.

## GEEK TEST

## [ Are you Geeked? ]

**1) Your favorite t-shirt:**
a) is free swag  (.5)
b) says "Save the Environment" (1.5)
c) is buried in your dresser - you prefer oxford shirts to compliment your pocket protector (1)
d) is only worn to bed because you dress for success (2)
e) None of the above (0)

**2) Your definition of a relationship with the opposite sex is:**
a) when you hold hands and kiss (1)
b) hanging out with more than one person in a chat room (1.5)
c) inviting a friend over to play video games (.5)
d) going to the Imax theatre to watch the newest documentary (2)
e) None of the above (0)

**3) For fun you do things such as:**
a) write in your journal in code only (3)
b) rock out to the latest cool band (4)
c) roost on your computer for hours with your door locked (1)
d) have video game tournaments with your friends (2)
e) None of the above (0)

**4) The most exercise you get in a day is:**
a) 2 hours at the gym everyday or team practice (1)
b) walking from your computer to the fridge (3)
c) jumping up and down to yell at your video game (2)
d) dancing around jamming to music you've burned (4)
e) None of the above (0)

**5) Your favorite television show is:**
a) Buffy the Vampire Slayer (4)
b) Jeopardy (3)
c) Star Trek (2)
d) Deep Space 9 (1)
e) None of the above (0)

**6) You still believe in:**
a) unicorns and dragons (3)
b) the Force (1)
c) vampires (4)
d) aliens/life out there (2)
e) None of the above (0)

**7) It's a rainy Saturday afternoon and you:**
a) stay at home and play HALO – your favorite past-time (1)
b) read your favorite Sci-Fi novel again (.5)
c) put together a preliminary business plan for the technology company that you will someday own (2)
d) sit on MySpace all day searching for new friends/downloads (1.5)
e) None of the above (0)

**8) You enjoy your computer. You think of it as:**
a) your best friend (1)
b) your primary tool to advance your knowledge to be successful in the future (2)
c) a device, nothing more (1.5)
d) games, games, games (.5)
e) None of the above (0)

**9) Your friends would say that you're:**
a) on your computer all the time and it's very difficult to pry you off (4)
b) a cool person until you're around a computer and then you forget about them (1)
c) incredibly intelligent because in 3rd grade you taught them every program backward and forwards on TI-83s (3)
d) always late and that your iPod is physically attached to you at all times (4)
e) None of the above (0)

**10) Your secret passion is collecting:**
a) stamps (1)
b) comic books (4)
c) vintage computers (3)
d) mp3's (2)
e) None of the above (0)

www.uat.edu

## Please geek responsibly.

You may speak the language, but are you geeked? Here's a chance to prove it. www.g33ktest.com.

# TECHNOLOGYFORUM 2011

'cause we're always 3 years ahead of the curve!

The University of Advancing Technology (UAT) brings industry's leading technology experts on campus for three extraordinary days of breakthroughs, insights, trends and challenges.

## June 18-20, 2008

## past tech forum speakers:

> John Smart, President - Acceleration Studies Foundation

> Joe Grand, President - Grand Idea Studios

> Ed Fries, Former VP - Microsoft Game Studios

> Gene Schultz, CTO - High Tower Software

> John Bain, CEO - WoW Radio

> Jamie Casap, Operations Project Manager - Google

> Fred Benenson, Co-Founder - FreeCulture.org

> Chris Hurley, Senior Penetration Test Specialist - Author of Wardriving: Drive, Detect, Defend

> Glen Campbell, Visual Effects Supervisor - Area 51

UAT's Technology Forum is the best way to interact directly with the best in industry - not to mention a great time to visit the campus!

To view past speaker presentations, keep updated on who's on the schedule for this year and to register, visit www.uat.edu/techforum.

Tech Forum is free of charge but seating is limited.

## www.uat.edu/techforum

**did you know...**

Tech Forum is the perfect way to see what UAT is all about. Use your Tuition/Tour Travel voucher.

University of Advancing Technology

UAT

Learn. Experience. Innovate.

## LG Prada Phone ▼

LG Electronics and PRADA reveal their complete touch screen mobile phone. This PRADA Phone by LG offers an advanced touch screen, an extra wide LCD screen, 2 mega pixel camera featuring a Schneider-Kreuznach lens, video player and document viewer capacity. Above all, these features contribute to the phone's beautifully sleek and simplistic appearance at an ultra thin 12mm. The phone contains additional multimedia functions, including an MP3 player, a music multitasking function for messaging and an external memory slot, allowing the user to increase memory capacity for images, music and film clips. Projected product debut – Fall '07.

**Projected list price: between $400-$500.00**

www.pradaphonebylg.com

## Sanyo Xacti VPC-E1

The Xacti E1 allows you to shoot both photos and video practically anywhere on dry land and under water. This powerful little camcorder easily records both high-resolution 6-megapixel digital still images and full 640x480 resolution video at 30 frames-per-second. All of these images and videos can be conveniently stored to a standard SD or SDHC flash memory card. Projected product debut – Summer '07.

**Projected list price: $454.99**

www.sanyodigital.com

# gadgets +Gizmos

## ◀ Project Epoc Human Interactive Gaming Helmet

Based on the latest developments in neuro-technology, Emotiv has developed a new interface for human computer interaction. Project Epoc is a headset that uses a set of sensors to tune into electric signals naturally produced by the brain to detect player thoughts, feelings and expression. It connects wirelessly with all game platforms from consoles to PCs. Project Epoc now makes it possible for games to be controlled and influenced by the player's mind. Engaging, immersive, and nuanced, Emotiv-inspired game-play will be like nothing ever seen before. Projected product debut – n/a.

**Projected list price: n/a**

http://emotiv.com

## 12GB NANO Thumb Drive ▲

Pocketec has just launched NANO, the super small 12GB portable storage device. The size of the NANO is only 38x38x15mm and is compatible with Window 98/SE/ME/2000/2003 server/XP/Vista and MAC OS 8.6. An added feature to this thumb drive is the hidden USB connection which pops out of itself. Projected product debut – Fall '07.

**Projected list price: $129.95**

www.pocketec.net

## ▼ Samsung Q2 UMPC

The new Samsung's Q2 UMPC appears to be identical to the beefed-up Q1P – like the 7-inch touch screen, 1GB of RAM and 60GB hard drive. There are new features to be included on this Q2 UMPC model. The Q2 will sport an unknown Intel (not Via) CPU running Vista Home Premium, a 1,024 x 600 WSVGA resolution, two digital cameras and a fingerprint scanner. The Q2 provides an albeit split QWERTY keyboard, Bluetooth 2.0, WiFi, HSDPA, and WiBro. Projected product debut – Spring '08.

**Projected list price: $1000.00**

www.engadget.com

# HOT

## ARTIFICIAL LIFE

**PHILL MILLER**
Instructor, Software Engineering

**IBM's Brain Simulator:** with the long-term goal of simulating a complete human brain with molecular resolution in real-time.

**Check out:**
Blue Brain, an artificial nerve network that simulates the human brain.

**Synthetic Biology:**

The quest to create organic life from its non-living chemical constituents is heating up. See the article entitled "Countdown to a synthetic lifeform" on the New Scientist website.

**Evolutionary Robotics:**

NetLogo Version 3.1.4: Visit http://ccl.northwestern.edu/netlogo/.

# NOT

**Artificial Neural Networks:**
Synaptic simulations are crude and unrealistic when compared to the Blue Brain Project.

**The video game Spore.** Will it ever be released?

# HOT

## NETWORK SECURITY

**RUSS ROGERS**
Professor, Network Security
Handle: **VERTIGO**

Locking down those pesky, yet overly convenient media that make it easy for data to seep out from organizations. With the size of these devices skyrocketing and the associated costs plummeting, organizations are becoming more concerned. There are a plethora of new product offerings that help organizations lock out USB ports, CD-ROM drives and Firewire ports.

Integrated security solutions that provide multiple security functions within a single product and can be managed centrally within the organization.

# NOT

Users taking home corporate laptops or losing sensitive data because of lost USB drives, documents and other disks. Multiple companies have taken the hit for losing sensitive information for thousands of customers or federal employees in the last year. No one wants to end up on the next day's front page.

Installing multiple stand-alone security products that have no hope of being managed/configured simultaneously. Companies are watching the cost of implementing good security and integrated management of security products simply makes more sense.

# WHAT'S NOT

## HOT

### ROBOTICS

**RYAN CLARKE**
Professor of Robotics
Handle: LosT

RFID, telepresence robotics, biped walkers, gas/electric hybrids, unique/customizable robots, emotive bots are hot in robotics and embedded systems.

There is a lot of excitement with "expressive" robots these days, from the early work on Kismet to the new Zeno Robokind. How we interact with robots is changing by how they express "emotions" to us. Using gas-powered engines to run battery/alternator-based robots is reaching down even into the hobbyist's realm these days. This affords greater power, allowing for outdoor robotics to become even more reasonable. Almost every major manufacturer of servos has a digital/feedback servo for sale these days. This is driven, no doubt, due to the rise in humanoid kits on the market. With feedback servos, animation routines can be recorded by the robot by users positioning steps in a sequence, much like a puppeteer. We must be evolving because walking bots are moving to two legs. Biped walkers are hot, especially those who learn to walk on their own. Go PID!

## NOT

Open-loop servos (go digital!), quadrupeds and reporters sneaking into Defcon (YouTube that one!).

## HOT

### GAMING

**MICHAEL EILERS**
Instructor, Game Design and Production

Procedural content generation, in which games generate custom, on-the-fly content from mathematical algorithms rather than using pre-created statics and models, is becoming a next-gen focus. Procedurals can be used for landscapes, weather, architecture and even animation and music.

Free-to-play MMOs that create revenue from micropayments and user-generated content are huge in Korea, and are catching on in the US and Europe as well. Disney, Viacom and other media companies are creating kid-friendly, advertising-supported persistent worlds which allow players to customize their avatar and environment for small payments, and several companies are currently converting popular Korean and Chinese free MMOs to USA-centric languages and play styles.

The PC, considered the "fourth-place" platform for decades, is roaring back with a new focus on online content, Vista/DirectX 10-enhanced games and graphics cards that can even challenge the mighty PS3 and Xbox 360. PC software sales are up almost 48% in the last year.

## NOT

Games that don't come with toolsets, APIs, level editors or the ability to change or modify the content. User-made content is an untapped source of revenue and is crucial to the next-gen audience.

Buying games in a box at retail; this speaks for itself, digital download and delivery is clearly the way of the future, as it is for music and film.

# MEET THE FACULTY

One of the hallmarks of UAT is a faculty who are as passionate about teaching as the students are about learning. UAT instructors engage and challenge students, whether in technology-based courses or general studies courses, to help them explore their passions and achieve their full potential.

**Did you know...**

Diane presented at the Techno Forensics conference in October on Virtualization and Forensics

## DIANE BARRETT

Associate Professor, Computer Forensics and Network Security
B.S. from Remington College

Diane has taught both online and traditional classes at UAT for two years. Before that, she worked at her alma mater, Remington College, for three years as the director of career services. When she is not teaching, she does contract forensic computer work as well as network security consulting. She is also working on her master's degree.

"I think the forensics program is an emerging program and I enjoy being a part of that. As a matter of fact, this summer we had two teams signed up for the Department of Defense's Computer Forensics Challenge. It's a lot of academics, but it is a fun thing, too."

"The students here are great. They are willing to learn and they push themselves. I think that is because UAT is a school that is focused exclusively on advancing technology and I haven't seen that in other schools. I like it here because I'm a true techie."

## LINDA LAGALIA

Associate Professor Digital Art & Design, Game Production, General Studies
B.F.A Illustration and Media Communications, New York School of Visual Arts

After receiving her Academic's Regent's Diploma in Photography from the prestigious High School of Art and Design in New York City, Linda landed her first job as a fashion illustrator for Halston and other fashion icons of the day. Since then, she has done gigs in art direction, freelance illustration, special effects photography and all types of production work in design studios throughout New York City. Her clients include Warner Brothers, AT&T, MacMillan/McGraw-Hill, Lillian Vernon Inc., Grammy nominee Genya Raven and The New York Times Book Review. Linda was one of the founding creators of the multimedia program at UAT and now teaches Design Theory, Color Theory, Interface Design, Basic Design Theory, Digital Painting, Conceptual Illustration and other software applications associated with these theories.

"I try to draw a few hours each day and even if I don't, I at least think about it. I also sing a few hours each day, usually while I am drawing... it's much more efficient!"

## KATHLEEN DUNLEY

Associate Professor, General Education, Graduate College Chair
M.A. Boston College, Ph.D. English, University of Colorado Boulder

Kathleen has taught a variety of English-related classes from developmental English to advanced seminars in 20th century literature at Red Rocks Community College in Lakewood, Co., The University of Colorado-Boulder and Boston College. Her work has been highly published and praised at several professional conferences including the work she recently presented to the American Culture Association, the Rocky Mountain Interdisciplinary History Association and the Association for Developmental Education. Her scholarly and leisure interests center around postmodern literature, graphic novels, and video gaming. She is currently completing her dissertation on ruins as memorials in "photo fictions" and image-texts.

"When I'm not teaching or writing, I spend my time gaming, curling and maintaining my two websites about online webtext for writing instructors and amusement park history. I'm currently working on two essays: one on Seth's graphic novel It's a Good Life if you Don't Weaken for consideration in the Melus Journal and one on Walter Benjamin's Arcades Project and Countermemorials for a forthcoming issue of English Language Notes."

# The Gates Millennium Scholars
**Funded by a Grant from the Bill & Melinda Gates Foundation**

When a highly coveted nationwide scholarship program selects approximately 1,000 recipients annually, finding yourself among the fortunate few can be a rather mind-blowing experience.

"I honestly thought it was a joke," said Chicago native Michael Dotson when a letter arrived proclaiming him to be one of the elect recipients of a 2007 Gates Millennium Scholarship.

Microsoft Corporation Chairman Bill Gates, and his wife, Melinda, established the Gates Millennium Scholars (GMS) program in 1999 with a $1 billion grant aimed at assisting financially challenged outstanding minority students.

Dotson represents the first grandchild in his family to be able to attend a university, a milestone that he is particularly proud of. "I'm really fortunate and blessed to have this opportunity." He's decided to major in Game Programming at UAT, and doesn't want to speculate beyond that, other than "being involved in some way with the gaming industry."

GMS scholarships are awarded to students across the country who have demonstrated academic excellence, strong leadership skills and a desire to pursue studies in education, engineering, library science, mathematics, public health and science.

## Gates Millennium Scholar chooses UAT

"The GMS program reduces those financial barriers and allows talented low-income students to attend the college or university of their choice," said Jim Shelton, director of education at the Bill & Melinda Gates Foundation.

That freedom of choice in selecting a university was easy for Dotson. "I've always loved video games, and when I found out about UAT, I wanted to pursue the career." Dotson proclaimed that "even if I hadn't received the scholarship, I still would have chosen UAT, but now I don't have to worry about taking out a lot of loans." Dotson said the only thing he has to worry about now is focusing on his studies and providing for his food and transportation. "Not a real big concern," he added.

Since its inception, the GMS has funded over 10,000 Gates Scholars from all 50 states enrolled in 1,300 colleges and universities nationwide.

For more information about financial aid go to www.uat.edu/financialaid. For more information about The Gates Millennium Scholars visit www.gmsp.org/.

UnCF

Find Yourself **WWW.UAT.EDU**

# UAT DEGREE PROGRAMS

## THE COLLEGE OF MULTIMEDIA

**Earn a Bachelor or Associate of Arts in Multimedia degree in the following majors:**

> Digital Animation
> Digital Art and Design
> Digital Video
> Game Art and Animation
> Game Design

## THE COLLEGE OF SOFTWARE ENGINEERING

**Earn a Bachelor or Associate of Science in Software Engineering degree in the following majors:**

> Artificial Life Programming
> Computer Forensics
> Game Programming
> Network Engineering
> Network Security
> Robotics & Embedded Systems
> Software Engineering
> Web Architecture

## THE COLLEGE OF TECHNOLOGY MANAGEMENT

**Earn a Bachelor or Associate of Science in Technology Commerce degree in the following major:**

> Technology Management

## GRADUATE COLLEGE OF APPLIED TECHNOLOGY

**Earn a Master of Science in Technology degree with concentration in the following areas of study:**

> Artificial Life Programming
> Game Production
> Information Security
> Software Engineering
> Technology Management
> Technology Studies

More online at www.uat.edu/majors

# GEEK 411 WEBSITES

### www.uatstore.com
The UAT Bookstore, located just off the main floor computer commons, stocks the world's only known source for rare, highly sought-after Alpha Geek UAT logo gear. The best place to find that intellectual techno savvy T-shirt that mere mortals do not understand. It's all here, waiting to help you get your geek on. Stop in if you're on campus or log on to www.uat.edu/bookstore to shop online.

### www.geeks.com
Geeks.com is a leading direct-to-consumer eCommerce site specializing in providing computer-related excess inventory, manufacturer-closeouts, high-demand and unusual computer components and peripherals at highly-discounted prices to "Geeky" consumers—you know who you are!

### www.coffeegeek.com
CoffeeGeek is the definitive source for comprehensive and detailed consumer reviews of coffee and espresso equipment, supplies and accessories.

### www.weeklygeekshow.com
The Weekly Geek is a podcast and blog about geek culture, video games, music and more. We like to say we cover the gamut of geekery because we think that particular turn of phrase is clever.

### www.geekculture.com
If you love computers, technology and cool stuff like cartoons, downloads and geek erotica, take a look at Geek Culture.

### www.geekstuff4u.com
For geeks by geeks, we are in the business of bringing you the hottest products Japan's electronics manufacturers have to offer. If you don't see a product, don't worry. If it's available, we can probably get one for you.

### www.getDigital.de
Here you can find everything that makes a real geek happier!

### www.thinkgeek.com
We sell products we love to people just like us: programmers, IT professionals, technology enthusiasts, gamers and rebels.

# FIND *what's* OUT *next*

## Free Subscription!

The Journal of Advancing Technology (JAT) is really intended for academics and industry veterans in various technology disciplines. But, if you think you're geeked enough to handle the material, we'd be happy to provide you with a free subscription. Are *you* geeked enough?

**Just fill out the tear-out subscription card in this magazine or email journal@uat.edu to subscribe.**

## WHERE TO FIND WHAT YOU NEED

### www.uat.edu
The University of Advancing Technology (UAT) is a unique, technology-infused private university that was founded by a techno-geek for techno-geeks. Our Mission is to educate students in the fields of advancing technology to become innovators of the future.

### www.gamedegree.com
You love games. Live for games. Want to make your career about games. But, to break into the video game industry, you'll need a degree.

### www.networksecuritydegree.com
Start Your Education in Net Security, Computer Forensics or Information Security at an NSA-recognized institution.

### www.alifedegree.com
Artificial Life Programming involves breaking accepted programming paradigms in the software engineering field and moving forward with paradigms that mirror life systems. For innovative thinkers seeking a wide range of programming possibilities in a changing world.

### www.g33ktest.com
What kind of geek are you? Take UAT's geek test and find out where you fit in the wide world of geeks!

### www.uat.edu/freshmanexperience
UAT provided six incoming freshmen with HD cameras to document their journey from high school to their first year "Freshman Experience" at UAT. See what they captured and how their lives have changed.

### www.geekedatbirth.com
Request more info about UAT and learn more about where you fit in at the University. What programs are you interested in? Start your future here!

# EVENTS

## GDC 2008
www.gdconf.com
San Francisco, CA
February 20-23, 2008

The Game Developers Conference defines the future of the $10 billion game industry and shapes the next generation of entertainment. The conference provides an independent forum for expert developers from around the world to share ideas, build skills and learn about the latest tools and technologies.

## TECHNO SECURITY CONFERENCE
www.technosecurity.com
Myrtle Beach, South Carlina
June 1-4, 2008

The conference promises to be another incredible training and networking opportunity. There are dozens of security-related conferences including the absolute best training and networking available anywhere!

## FULL ACCES 2008
wwww.uat.edu/fullaccess
Tempe, AZ
March 24 & June 16, 2008

Listen to the Industry's Experts talk about hacking and programming. Get information about UAT's degree programs from deans, faculty and students. Learn about financial aid, housing and enrollment and tour the campus!

## GEEK WEEK
October 2008

Other universities might call it "Homecoming," but at UAT, it's a week for geeks, so we call it... well, Geek Week. Our Student Life and Resident Life teams put together seven days full of everything geek - from movie nights to Pi-Off and Dodgeball Tournaments - for fun and prizes.
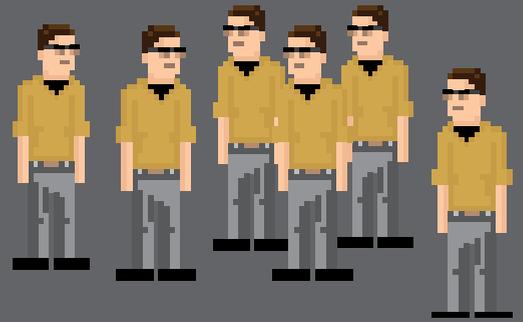
{clustergeeking}

## TAKE A TOUR- MAKE A BUCK!!

Get PAID to come visit us! Look for the Tuition/Tour Credit Voucher tear-out card inside this magazine. It's worth $500 off your first semester's tuition.

## DEFCON
www.defcon.org
Las Vegas, NV
July 2008

The Largest Underground Hacking event in the World! UAT faculty and students play important roles as goons and speakers at DEFCON.

## UAT 25th ANNIVERSARY
wwww.uat.edu/anniversary
Tempe, AZ
September 2008

Come join UAT to celebrate its 25th birthday! UAT has evolved from an accelerated industry corporate training division to its present status as a nationally recognized educational leader. Come see the developments and changes we've made in 25 years! Visit www.uat.edu/anniversary

## TECH FORUM
www.uat.edu/techforum
Tempe, AZ
June 18-20, 2008

UAT brings industry's leading technology experts on campus for three extraordinary days of breakthroughs, insights, trends and challenges.

# MEET THE STAFF

MEET THE ENTIRE UAT STAFF AT
**www.uat.edu/staff**

The staff at UAT is as passionate about technology as the students and faculty. And they are just as passionate about their mission to assist students in every facet of their college experience. We are unique because we have created, and continually nurture, a community of students and staff — "self-styled geeks, many of them" — whose personal and professional lives revolve around technology.

## NATE BEALOR
Career Services Coordinator Industry and Career Services

Nate is a native of La Porte, Indiana, and received his bachelor's from DeVry University. He is currently working toward completing his master's degree.  His job involves helping students transition into the world of work by maintaining industry contacts and assisting them with resumes, cover letters, networking and interview skills.

"I love working with the students. They remind me what it's like to be passionate about a field of study and to really want to make it in a particular industry. When they're passionate about it, I'm passionate about helping them."

## MEREDITH BARHAM
Associate Dean of Student and Employer Affairs

Meredith is a graduate of New York University and holds a master's from Southern Illinois in Carbondale. "We (the staff) all have the same understanding of our students and really get this kind of community."  According to Meredith, the unique faculty and staff at UAT are a perfect fit for the students.

"The students here are different. We have a niche community, and they are truly innovators. They are incredibly smart but they are also good with their hands. You can't help but fall in love because there are so many of us here who are a little different. These are the kids who belonged to math club or were on the debating team in high school. I was one of those kids who was kind of geeky, so I love the fact we have all found our place here."

## ROBERT MARSHALL
Enrollment Coordinator Industry and Career Services

Robert first made connections with UAT as a student back in 1999 after living abroad and traveling for the majority of his life.

"After my degree, I decided to remain active within UAT by spreading the gospel as an Enrollment Coordinator. My desire for technology, coupled with my ability to assist and support students with such a potentially life-changing decision, has made my UAT experience a rich and rewarding endeavor on many levels."

Robby says since he initially came from Canada to attend school and arrived to a new environment not knowing anyone, his UAT family has become a strong one and the relationships he has built over the years with fellow colleagues, professors and students have been instrumental in his development as an individual and as an admissions representative.

"This is my school and I'm proud to be a part of its growth and advancement as we cultivate innovators for our future."

OVER EASY WITH A SIDE OF EMBEDDED SEQUENTIAL CONTROL, PLEASE.
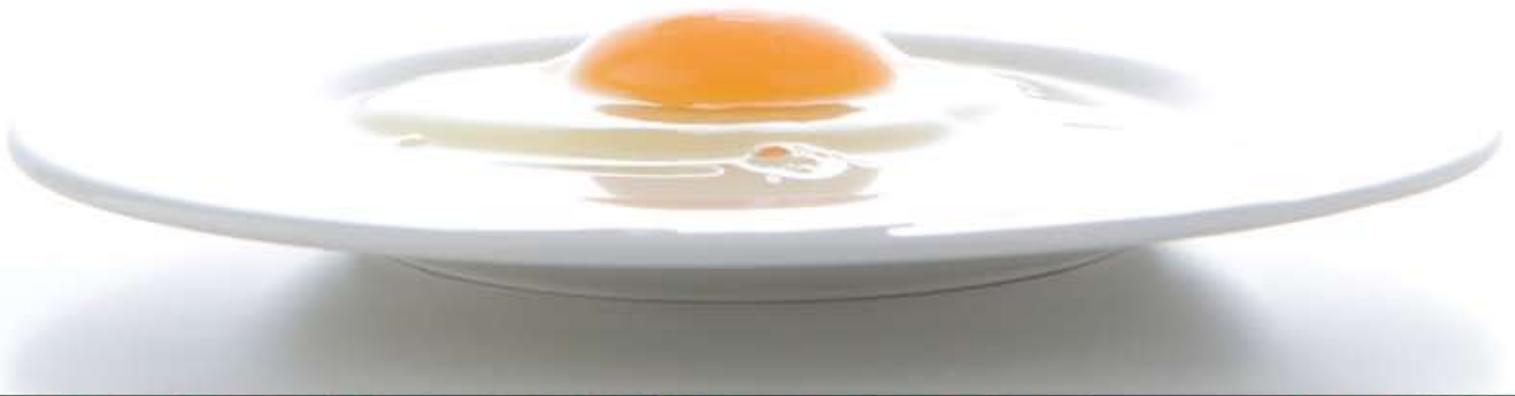
The science of robotics represents a growing field requiring innovative and technologically creative thinkers. Apply your own genius to the process and earn a degree in Software Engineering while majoring in Robotics and Embedded Systems at UAT. Discover the next step in technology and get a Bachelor's Degree for dessert.

Discover yourself at UAT.edu/robotics

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Learn. Experience. Innovate.

# READY SET GO

**The UAT admissions process can begin as early as your sophomore year in high school.** This can be a great benefit to you, since it allows you to create a relationship with a representative from the University, who can help guide you every step of the way. In addition, applying early and ensuring acceptance:

> Gives you access to UAT's Intranet.
> Gives you access to your enrollment coordinator so they can help you and your family with this decision.
> Keeps you connected with campus events and news.
> Helps you become part of the UAT community.

Apply online today at http://www.uat.edu/admissions
or request more information at http://www.uat.edu/requestinfo

**did you know...**

Did you know 68% of UAT students are accepted

## Who's admitted to UAT?

Selection criteria for acceptance to the University of Advancing Technology is not solely based on academics. UAT's Admissions Office is looking for that student who is not only smart, but who will also be a fit with our geek culture.

Students that are accepted are passionate about learning in an environment designed around technology. For instance, a student who has been building websites, programming or building advanced robots is of more interest to UAT Admissions than someone who has not demonstrated aptitude and only has good test scores.

## So...what's Next?

Prospective students may apply online at www.uat.edu/apply. Admissions requirements and the online application are both found on this page.

Soon after your application has been received and reviewed by our Acceptance Committee, you will be notified of your acceptance status.

## 2008 Dates & Deadlines

Spring Semester:  January 14 – May 2, 2008
Spring Orientation:  January 10
Spring Break:  March 17 – 21

Summer Semester:  May 12 – August 22, 2008
Summer Orientation:  May 8

Scholarship Deadlines for First-Time Entering Students for Summer 2008:
Application deadline for community, privately-sponsored or board-sponsored scholarships:  January 14, 2008
Enrollment deadline for Community, privately sponsored or board-sponsored scholarship recipients:  March 10, 2008
Document submission deadline for Academic Scholarships:  May 12, 2008

# Darwin didn't see this coming.

Artificial life is here. It's the study of applying the principles of living systems to solve complex real-world problems. Learn to synthesize life behaviors in computers. Create self-organizing systems that behave like living organisms. And earn a bachelor's degree while you're at it.

Experience evolution at your fingertips at www.artificiallifedegree.com

Artificial Life Programming  >  Technology Management  >  Computer Forensics  >  Game Programming  >  Network Engineering  >  Network Security  >  Software Engineering  >
Web Architecture  >  Robotics and Embedded Systems  >  Digital Animation  >  Digital Art and Design  >  Digital Video  >  Game Design  >  Game Art and Animation

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# SHMOOCON
## Less moose than ever.

"Shmoozin" with Professor Ryan Clarke
(continued from page 3)

ShmooCon is an annual East Coast hacker convention jamming three days of technology exploitation, inventive software and hardware solutions, and open discussions of critical infosec issues into an interesting and sometimes outrageous atmosphere. The first day is a single track of speed talks called One Track Mind. The following two days includes three tracks: Break It!, Build It! and Bring It On!

**Q: What made you and your students decide to go to ShmooCon this year?**

A: Everyone always gets excited about Defcon because I run a conference and I have been part of the Defcon community for many years now. This year, I was sitting in 244 [a UAT computer lab] like I always am with my students and I said, "Why don't you guys ever go to any of the other conferences?" It turns out many of the students are familiar with some of these smaller conferences and maybe that would be a better experience for them. So I said, "What about ShmooCon?" Some of the other students overheard me, and they said, "Ok. Let's go."

**Q: How did you get selected as a presenter?**

A: Any time a group of students decides they want to go to an event, I submit a paper to that conference because if I am speaking I get extra privileges and things like that so I submitted a paper. They had like 300 papers submitted and only accepted 25 or 30 so it was a big compliment to be accepted.

**Q: So how did the presentation go?**

A: I had never presented at ShmooCon before, so this was my first year. It was a hardware hacking talk, and as far as I know this is the first time ever in a live presentation that included an in-talk hacking challenge that was live. I also did an in-talk hardware hack where I modified servers from standard servers to continuous rotation. For my in-talk hack I set up a wireless network prior to my presentation that I built from hardware I connected to a server that was running during the presentation. People in the audience could log in and turn a laser on and off that was shooting on the wall behind me while I was speaking. There was a protective page they had to hack into and if they hacked into it they could hit a button to a website that turned on a blue police light and a strobe light. I thought it would be very dramatic if somebody could get through in the middle of my presentation. And somebody did, so I gave them a prize - a UAT bag!

**Q: You also won the ShmooCon Cyber-challenge. Tell us more about that.**

A: About 15 minutes before I was about to present - and mind you this was in a room full of about 800 of the most elite hackers in the country - I got a call from my wife and found out my home had been broken into. They took everything. I was very flustered but I didn't say anything. I did my presentation and it went very well.
Afterwards, I had time to sit and think about it. I felt very frustrated that there was nothing I could do to help her because I was clear on the other coast. The way my mind works, solving problems helps to take my mind off of things like that. In the ShmooCon program they had a little blurb with an encrypted message. It was actually the start of a challenge.

**Q: How did you know that?**

A: They have these at conferences all the time. They're called Crypto Challenges. I decided to join the Crypto team to take my mind off of things. So I joined with two other people and we sat down in the lobby of the hotel and started working on this challenge. In the first three hours, we had broken the first two phases and they change. It goes from encrypted message in the program to a website with hidden messages and we actually won the Crypto Challenge. My team actually won the ShmooCon Crypto Challenge! This one was very math intensive and math is my background, that's why we did so well. It was a lot of fun. And out of that we actually formed a group, and now we are setting up hacker challenges for other people to do. Out of my frustration we worked on this for 10 maybe 12 hours straight. It is a race against other teams and it is a big deal at a conference of that caliber. There were some pretty heavy hitters there.

**Q: What do you think the students got out of this experience?**

A: We had two students who were doing Shmoo Labs where they hire people to actually come in and set up the network for the conference. It is an enterprise-level network, which is something younger people might never get an opportunity to participate in until they get into the workplace. They take applications and a bunch of people who really know what they are doing and some with no experience at all but who want to learn and they throw those two groups together and they set up the conference network, which is really a complicated network.

**Q: Any other good stories to tell us?**

At ShmooCon everybody who attends gets a Shmoo ball with their ticket. You can buy extras and the money is donated to the Electronic Frontier Foundation. If you have either a philosophical or technical disagreement with something that is being presented, you are encouraged to stand up in the middle of the presentation and pelt the speaker with the ball. The goal of the speakers obviously is to not get pummeled. (I didn't, however, because I was armed with the UAT Ninja star, so I could have counter-attacked if I needed to.) Certain people - like the Microsoft folks - always get really hammered hard. I was in one talk where they were talking about Wi-Fi standards and the poor guy got pelted by like 30 balls!

## Anime Club

**Sundays at 12-2 pm**

The purpose of the Anime Club is to bring together fellow students to watch and discuss anime, how it has evolved, where it is going and how students can find a niche if they want to work in or with anime.

We will be working on the following this semester:

..., the local anime conv...
...me Expo in Anaheim, Ca...
...ise funds for trips

## Fencing Club

The Fencing club gets together every se...

12:

## Ancient Games Club

*Friday, January 13 from 1:30 – 3:00 p.m.*
*"One-on-One" games in the Small Commons*

> KALAH
> Nim
> Dominoes
> Nine Men's Morris
> Mastermind
> Othello
> Connect Four

The Ancient Games Club is for games that are considered "ancient" in the student body because th... ...electronic in nature

## ATW PRESENTATION

Kimbelee Snyder - President
ATW

The UAT net security club and local DefCon chapter hacks, tinkers, secures and breaks stuff. If you ... ...t and ...bilities ...this is

...nd 2:30 p.m. ...

## uat Xtreme sports

**SATURDAY 2:00PM**

In the theater
5:30-6:20 pm
...y, October 8th

## Photography

**Fridays 3:30-4:30pm**

This club is a forum for peopl... about and to experiment wit...

The club plans trips arou... communities to take photograp...

Photographs can be sho... as well as in coffee shop... around the Greater ...

If you have any questions, or are **interested in join**...

## Bible Club

**Sunday 12:00**

The UAT Bible Club exists to provide a forum for the study and discussion of the Bible. We have a relaxed, informal atmosphere where everyone is equal and free to be heard. All are welcome to participate regardless of beliefs.

# CLUBS& GROUPS

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## Web_Development

The purpose of this group is to gain a better understanding of working on websites in a group environment.

## Java_user_group

To join the Phoenix Java User's Group, all you need to do is register and attend. This group is aimed at anyone with an interest in Java technology. There are no membership dues.

## PC_user_group

Phoenix PCUG is based on the idea of Users Helping Users Learn Computers.

## ATW

Alliance of Technology and Women (ATW) targets ALL professional women involved in technology. ATW is a dynamic new, non-profit organization founded on principles of integrity and professionalism and focused on professional development for those in technology.

## Cold_Fusion User_Group

Learn some new tricks or get a solid review of your code!

## Net_Security

DC480 is working on creating a device that will be entered in the annual DefCon conference for hackers. The DC480 group gets its name from DefCon (DC) and the local 480 telephone area code.

## Paintball

UAT has a competitive paintball team — Team Adrenaline!

## X_Users

XUsers is the Mac OS X users group.

## Ancient_Games

The Ancient Games Club is for games that are considered "ancient" to the student body because they are not electronic in nature. Our goal is not just to play games but to learn from them by not just exercising our mental muscles, but learning why games should be taught to children. For each game we will learn how to play it, but also strategies for winning, how to teach it, what it teaches, and how to best use the game for educational benefit.

## Rhythm_Games

The UAT DDR (Dance Dance Revolution) is a game with a simple concept; it is based on hitting arrows that are flashing to the beat of the music. To achieve this, you must step on the appropriate arrows on the dance pad under you with accurate timing—hence it makes the illusion of dancing. Songs range from slow and easy to technical and fast—meaning there is a wide selection of difficulty. As you progress in game play the concept behind the four arrows begin to evolve into the coordination of foot movement and, if desired, dance ability. And, that's all there is to it!

## GSA

Gay-Straight Alliance (GSA) is a student-run club that provides a safe place for students to meet, support each other, talk about issues related to sexual orientation, and work to end homophobia. Many GSAs function as support groups and provide safety and confidentiality to students who are struggling with their identity as gay, lesbian, bisexual, transgender, or questioning. In addition to support, some GSAs work on educating themselves and the broader school community about sexual orientation and gender identity issues.

## Anime_Club

The purpose of the Anime Club is to bring together fellow students to watch and discuss anime, how it has evolved, where it is going and how the students can find a niche if they want to work in or with anime. Our goal is to promote Japanese anime.

## Softball

The UAT Softball club is in full swing during the summer. Made up of students and staff, the UAT Hackers encourage men and (especially) women to join.

## Photography

The UAT Photography club takes regular trips around Arizona and surrounding communities to get photographs. The club hopes to showcase a lot of its work in coffee shops and galleries around the Greater Phoenix Area. The club will be going over many technical and artistic techniques with photography.

## Error404

Error404 is the student-based newspaper for UAT. Started in the Summer of 2006, Error404 has been steadily growing and getting better over time. We're constantly looking for people to write articles, take pictures and help bring more stories to the University. We want people who are willing to go find the stories. If you're that person, we want you! Error404 releases issues monthly and focuses stories around the University, the student community, and recent industry happenings.

## Extreme Sports Club

UAT's Extreme Sports Club offers skateboarding, rock climbing (indoor and outdoor), BMX biking, surfing and snowboarding!

## Bible Club

The UAT Bible Club exists to provide a forum for the study and discussion of the Bible. We have a relaxed, informal atmosphere where everyone is equal and free to be heard. All are welcome to participate regardless of beliefs.

## Fencing Club

We just recently competed against some of the best fencers in the country. Five fencers went into the competition electrically and two non-electrically. Come join our team!

# FEEDYOURINNERGEEK

## JustBecauseYou'reLeavingMomAtHome,Doesn'tMeanYouHaveToEatLikeIt.

UAT's Café, our refuge for all things gastronomical, is expanding to become a full-service eatery. New equipment, new services and a new look will be on the scene soon. "We're going to make the restaurant more customer friendly," says Anthony Albanese, restaurant manager. "Plus, we're hiring a head chef to help create new menu ideas."

Customers will see some of the same options as before but it will be prepared in-house and healthier.
Other changes will include:

- **A salad bar**
- **A cereal bar**
- **A hot line with dinners such as lasagna, barbeque and pasta**
- **An omelet bar during breakfast hours**
- **A hot dog grill with bun warmer**
- **A full deli area with prep area visible to the customer**
- **A sandwich line with made-to-order, fresh eats as well as pre-made grab-and-go choices**
- **A pizza counter which will also include hot soup (two choices daily), pulled pork, and chili**
- **A "snack shack" with chips, candy, a soft-serve ice cream station and other sweet treats**

"Please be patient with us during this renovation," Albanese adds. "It'll be worth it in the long run." The hours for getting your grub will also change. But, don't worry, snacks and beverages will be available all day. So, come on down to UAT's Café and feed your inner geek!

### Café Hours: Weekdays

**Breakfast:** 8:00 a.m. – 10:00 a.m.
**Lunch:** 12:00 p.m. – 2:00 p.m.
**Dinner:** 5:00 p.m. – 7:00 p.m.

### Café Hours: Weekends

**Brunch:** 10:00 a.m. – 12:00 p.m.
**Dinner:** 4:00 p.m. – 6:00 p.m.

### Menu Options

**Breakfast:** pancakes, waffles, bacon, sausage, omelets, pastries, yogurt, fresh seasonal fruit

**Lunch:** pizza, sandwiches, wraps, soups, chicken wings

**Dinner:** barbeque, meatloaf, stir fry, lasagna, taco and pasta bars, various side dishes including rice and vegetables

In an unprecedented show of appreciation, UAT network security professor Ryan Clarke, was awarded his second prestigious Black Badge at Defcon 15 held in Las Vegas in early August. The rare Black Badge is an award presented to individuals who have demonstrated exceptional achievement in advancing the field of security. Award winners are entitled to free entrance to DefCon for life and a reputation of rising above the hacker nation. This year, only 12 Black Badges were presented at the conference of more than 8,000 attendees. Clarke is the first recipient of two Black Badge Awards in the history of the DefCon conference.

Clarke described his reaction to his second award as "surprised."

"They are so coveted."

The award was given, in large part, for Clarke's innovative work creating and hosting the conference's second annual LosT@Con Mystery Challenge, which paid homage to hacking's origins in phone phreaking (hacking phone systems) and required high-level skills in hardware hacking, puzzle solving, cryptography and networking. Ordinarily, challenges must be a part of the DefCon conference for a minimum of three years before being considered as an official contest on DefCon, so it was especially remarkable that it was designated as "official" in its second year.

The challenge this year was taken up by more than 25 teams. The winning team was made up mostly of "goons" – the highly accomplished all-volunteer staff at DefCon, who are considered among the nation's elite hackers. Based on the difficulty, teams of five or more individuals banded together to work the problem because the challenge was so intense.

The rules of the contest were simple: There were none. Details of the contest were closely guarded and not given out until the contest started, so everyone began on a level playing field.

The challenge was divided into six stages. The first stage was an encoded message they had to break to receive instructions of what to do next. In the second phase, contestants were required to break through the bottom of the LosT@Con box without tripping its tilt sensor. Inside the LosT@Con box, were bags containing a riddle and the components needed to build a piezoelectric (crystal radio) phone the team needed to build in order to receive an encrypted audio signal hidden broadcast via an LED. This message included a phone number they could dial on a modified analog rotary phone that played an MP3 file when the correct number was dialed. This MP3 message contained the final password to be delivered to Clarke to officially complete the challenge.

The winning team completed the challenge in 22 ½ hours, with 13 of the original 25 teams making it to the finish line. UAT's student team consisting of Rocco Valenti, Dennis Evans, Burt Rieger, Mark Featherstone, Sean Hylanner, Mac Shapels and Christopher Branson finished in second place, due in part to a map error.

To cap off the challenge, an award ceremony and celebration was held to present the winning team with the DefCon 15 LosT@Con Mystery Challenge trophy - a four-foot golden monkey wrench!

# LosT@Con challenge leads to Black Badge



"I was not expecting it," he said. "They are so coveted."
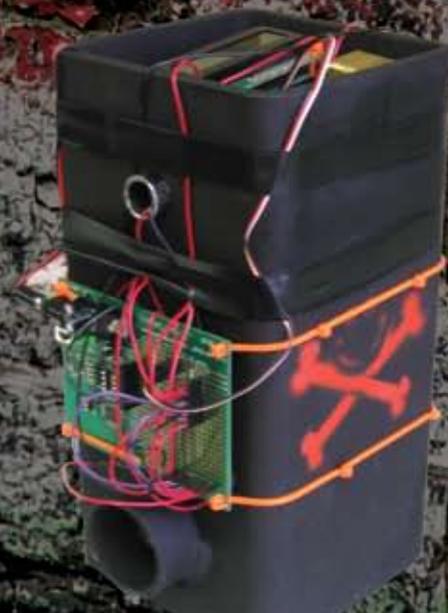
# TRAVEL SCHEDULE

## Spring 2008

ROCHESTER, NY
BUFFALO, NY
SYRACUSE, NY
SPRINGFIELD, MA
BOSTON, MA
GRAND RAPIDS, MI
HARTFORD, CT
PROVIDENCE, RI
DETROIT, MI
PITTSBURGH, PA
NEW YORK, NY
CLEVELAND, OH
EDISON, NJ
SAN FRANCISCO, CA
LOUISVILLE, KY
GAITHERSBURG, MD
VENTURA, CA
ONTARIO, CA
MEMPHIS, TN
NASHVILLE, TN
CHARLOTTE, NC
LOS ANGELES, CA
ANAHEIM, CA
PHOENIX, AZ
SAN DIEGO, CA
HOUSTON, TX

## * Fall 2008

SPOKANE, WA
SEATTLE, WA
PORTLAND, OR
BOISE, ID
MINNEAPOLIS, MN
MILWAUKEE, WI
CHICAGO, IL
PHILADELPHIA, PA
LONG ISLAND, NY
BALTIMORE, MD
ATLANTIC CITY, NJ
CINCINNATI, OH
WASHINGTON, DC
ST. LOUIS, MO
PHOENIX, AZ
BIRMINGHAM, AL
AUSTIN, TX
BATON ROUGE, LA

# Spring 2008 NACAC Schedule

| | | | |
|---|---|---|---|
| LOUISVILLE | Sat., Feb. 2 | 1:00 pm – 4:00 pm | Kentucky Int'l Convention Center<br>Louisville, KY |
| ATLANTA | Sun., Feb. 10 | 12:00 pm – 4:00 pm | Georgia International<br>Convention Center<br>College Park, GA |
| PITTSBURGH | Thurs., Feb. 28<br>Fri., Feb. 29 | 9:00 am – 1:00 pm<br>6:00 pm – 9:00 pm<br>9:00 am – 12:00 pm | David L. Lawrence<br>Convention Center<br>Pittsburgh, PA |
| SPRINGFIELD | Sun., Mar. 2<br>Mon., Mar. 3 | 12:00 pm – 4:00 pm<br>9:00 am – 12:00 pm | Eastern States Exposition<br>(The Big E)<br>West Springfield, MA |
| MEMPHIS | Sun., Mar. 16 | 1:00 pm – 11:30 am | Memphis Cook Convention Center<br>Memphis, TN |
| CHARLOTTE | Sun., Mar. 30 | 12:00 pm – 4:00 pm | Charlotte Merchandise Mart<br>Charlotte, NC |
| BUFFALO | Tues., Apr. 1<br>Wed., Apr. 2 | 9:00 am – 1:00 pm<br>6:00 pm – 8:30 pm<br>9:00 am – 12:00 pm | Buffalo Niagara Convention Center<br>Buffalo, NY |
| HARTFORD | Thurs., Apr. 3<br>Fri., Apr. 4 | 9:00 am – 11:30 pm<br>6:30 pm – 8:30 pm<br>9:00 am – 11:30 am | Connecticut Expo Center<br>Hartford, CT |
| ROCHESTER | Fri., Apr. 4<br>Sat., Apr. 5 | 9:00 am – 12:00 pm<br>1:00 pm – 4:00 pm | Rochester Riverside<br>Convention Center<br>Rochester, NY |
| HOUSTON | Sun., Apr. 6 | 1:00pm – 4:00pm | George R. Brown Convention Center<br>Houston, TX |
| ORANGE COUNTY | Sun., Apr. 6 | 1:30 – 4:30 pm | Orange County Fair<br>and Exposition Center<br>Costa Mesa, CA |
| SYRACUSE | Sun., Apr. 6<br>Mon., Apr. 7 | 1:00 pm – 4:00 pm<br>9:00 am – 12:00 pm | Onondaga County Convention Center<br>At OnCenter, Syracuse, NY |
| INLAND EMPIRE | Tues., Apr. 8 | 9:00 am – 12:00 pm<br>6:00 pm – 8:30 pm | Ontario Convention Center<br>Ontario, CA |
| BOSTON | Tues., Apr. 8<br>Wed., Apr. 9 | 9:00 am – 12:00 pm<br>6:00 pm – 9:00 pm<br>9:00 am – 12:00 pm | Bayside Expo Center<br>At OnCenter, Syracuse, NY |
| SAN DIEGO | Tues., Apr. 10 | 9:00 am – 12:00 pm<br>5:30 pm – 8:30 pm | San Diego Convention Center<br>San Diego, CA |
| CLEVELAND | Sun., Apr. 13 | 1:00 pm – 4:00 pm | Wolstein Center<br>Cleveland, OH |
| NEW YORK | Sun., Apr. 13 | 12:00 pm – 4:00 pm | Jacob K. Javits Convention Center<br>New York, NY |
| GREATER<br>LOS ANGELES | Sun., Apr. 13<br>Mon., Apr. 14 | 1:00 pm – 4:00 pm<br>8:30 am – 11:30 am | University of Southern California<br>Galen Center<br>Los Angeles, CA |
| VENTURA/<br>TRI COUNTY | Tues., Apr. 15 | 5:30 pm – 8:30 pm | Seaside Park<br>Ventura, CA |
| WEST MICHIGAN | Tues., Apr. 15 | 8:30 am – 11:30 am<br>6:00 pm – 8:00 pm | DeVos Place<br>Grand Rapids, MI |
| MONTGOMERY<br>COUNTY | Wed., Apr. 16<br>Thurs., Apr. 17 | 9:45 am – 12:45 pm<br>6:30 pm – 8:30 pm<br>9:45 am – 12:30 pm | Montgomery County<br>Agricultural Center<br>Gaithersburg, MD |
| METRO DETROIT | Thurs., Apr. 17 | 9:00 am – 11:30 am<br>6:30 pm – 8:30 pm | Burton Manor Banquet and<br>Conference Center |
| SAN FRANCISCO | Thurs., Apr. 17 | 3:00 pm – 7:00 pm | Concourse Exhibition Center<br>San Francisco, CA |
| PROVIDENCE | Sat., Apr. 26 | 1:00 pm – 4:00 pm | Rhode Island Convention Center<br>Providence, RI |
| NASHVILLE | Sun., Apr. 27 | 1:00 pm – 4:00pm | Nashville Convention Center<br>Nashville, TN |
| NEW JERSEY | Wed., Apr. 30<br>Thurs., May 1 | 9:00 am – 12:00 pm<br>6:00 pm – 9:00 pm<br>9:00 am – 11:45 am | New Jersey Convention<br>and Exposition Center<br>Edison, NJ |

# We're Coming
## to a Town Near You
## to Geek You Up

!

The UAT Road Show is on its way across the country to spread the word about this unique educational opportunity. If you're a seriously geeked student who wants to conquer the technology world, attendance is mandatory. It's the fastest way to get face-to-face with a UAT representative and get the information you need to make the most important decision of your life.

Log on to www.uat.edu/nacactravel for the latest details.

# * Fall 2008 NACAC Schedule

| | | | |
|---|---|---|---|
| BIRMINGHAM | Sun. Sept. 16 | 1:00 pm – 4:00 pm | Birmingham-Jefferson Complex<br>Birmingham, AL |
| LONG ISLAND | Sun., Sept. 30 | 11:00 am – 4:00 pm | Nassau Veterans Memorial Coliseum<br>Uniondale, NY |
| AUSTIN | Sun., Sept. 30 | 1:00 pm – 4:00 pm | Austin Convention Center<br>Austin, TX |
| CINCINNATI | Sun., Oct. 7 | 1:00 pm – 4:00 pm | Duke Energy Center<br>Cincinnati, OH |
| MINNEAPOLIS | Tues., Oct. 9<br>Wed., Oct. 10 | 9:00 am – 12:30 pm<br>4:30 pm – 8:00 pm<br>9:00 am – 12:30 pm | Minneapolis Convention Center<br>Minneapolis, MN |
| CHICAGO | Sat., Oct. 20 | 10:00 am – 2:00 pm | Navy Pier<br>Chicago, IL |
| MILWAUKEE | Sun., Oct. 21 | 12:00 pm – 3:30 pm | Midwest Airlines Center<br>Milwaukee, WI |
| ST. LOUIS | Sun., Oct. 21 | 12:00 pm – 3:00 pm | St. Louis University<br>St. Louis, MO |
| BATON ROUGE | Tues., Oct. 23 | 9:00 am – 1:00 pm<br>6:00 pm – 9:00 pm | Baton Rouge River Center<br>Baton Rouge, LA |
| PHOENIX | Sun., Oct. 28 | 12:00 pm – 4:00 pm | Phoenix Civic Plaza<br>Phoenix, AZ |
| ATLANTIC CITY | Tues., Oct. 30 | 9:00 am – 12:00 pm<br>6:00 pm – 8:30 pm | Atlantic City Convention Center<br>Atlantic City, NJ |
| SPOKANE | Tues., Oct. 30 | 9:00 am – 1:00 pm<br>6:00 pm – 8:00 pm | Spokane Convention Center<br>Spokane, WA |
| PORTLAND | Fri., Nov. 2<br>Sat., Nov. 3 | 9:00 am – 12:00 pm<br>1:00 pm – 4:00 pm | Oregon Convention Center<br>Portland, OR |
| PHILADELPHIA | Sun., Nov. 4 | 11:00 am – 4:00 pm | Pennsylvania Convention Center<br>Philadelphia, PA |
| SEATTLE | Sun., Nov. 4<br>Mon., Nov. 5 | 12:00 pm – 4:00 pm<br>9:00 am – 12:00 pm | Washington State Convention<br>& Trade Center<br>Seattle, WA |
| BOISE | Tues., Nov. 6 | 9:30 am – 2:30 pm<br>6:00 pm – 8:00 pm | Boise Centre on the Grove<br>Boise, ID |
| WASHINGTON | Thurs., Nov. 8 | 9:30 am – 12:30 pm<br>6:30 pm – 8:30 pm | Washington Convention Center<br>Washington, DC |
| BALTIMORE | Mon., Nov. 12<br>Tues., Nov. 13 | 9:00 am – 1:00 pm<br>6:00 pm – 8:00 pm<br>9:00 am – 12:00 pm | Baltimore Convention Center<br>Baltimore, MD |
| FT. LAUDERDALE | Thurs., Nov. 15 | 9:00 am – 12:30 pm<br>5:00 pm – 8:30 pm | Ft. Lauderdale/Broward<br>City Convention Center<br>Ft. Lauderdale, FL |

* Fall 2008 Schedule based upon last year's Fall 2007 scheduloe. Dates subject to change.

[ GEEKED AT BIRTH ]

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Digital Animation          Technology Management
Digital Art and Design     Game Programming
Digital Video              Network Engineering
Game Design                Network Security
Artificial Life Programming Software Engineering
Computer Forensics         Web Architecture
Game Art and Animation     Robotics and Embedded Systems

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