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UH Named Center of Excellence for Work on Cyber Defense

The University of Houston's educational and research programs in cybersecurity and cyber defense have been recognized by the National Security Agency and the Department of Homeland Security.

UH first received the "Center of Academic Excellence" designation for its education programs in 2007, after the creation of the Center for Information Security Research and Education. This is the first time it has received the research designation.

UH is one of 28 universities in the United States, including three in Texas, with the dual designation.

The recognition, good for six years, offers a stamp of approval for education and research into a rapidly changing field. Cybersecurity issues, from crime to espionage, have gained attention as society has grown more dependent on computers and the Internet. The work involves faculty from the College of Natural Sciences and Mathematics' Department of Computer Science and the College of Technology.

Stephen Huang, professor of computer science, said the research designation reflects the strength of UH research in cybersecurity and related areas, led by faculty in the computer science department.

"Designation as an NSA Center of Excellence for Research is a prerequisite for several federal funding opportunities, including National Science Foundation and Department of Defense scholarships and capacity building grants," he said. "These additional opportunities will provide a boost to our cybersecurity research and education."

The research review covered the Ph.D. curriculum, the number of doctoral degrees awarded and both the research publications and grant awards for faculty working in the cybersecurity field.

The computer science department emphasizes research that addresses contemporary societal problems, said department chairman Jaspal Subhlok, noting that cybersecurity is one of the nation's biggest challenges.

"Computer science researchers, with expertise spanning cryptography, data analytics, biometrics, image processing and natural language processing, are collaborating to address the big challenge of cybersecurity," Subhlok said. "They are developing innovative solutions to detect intruders into

critical infrastructures, prevent phishing attacks, fight bioterrorists and authenticate authorship of documents."

"It's a scarier world today than it's ever been, because hackers have figured out how to monetize cyber-crime," said Arthur Conklin, associate professor of Information and Logistics Technology and director of the Center for Information Security Research and Education.



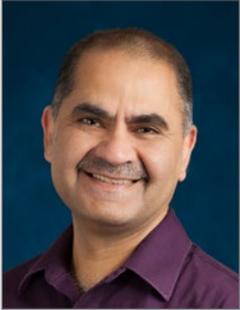
From left: **Leonard Reinsfelder**, Deputy Director for Education and Training, NSA; **Arthur Conklin**, Associate Professor, UH College of Technology; **T. Randall Lee**, Associate Dean for Research, UH College of Natural Sciences and Mathematics; **Stephen Huang**, UH Professor of Computer Science; **Lynne Clark**, Chief of the National Information Assurance Education and Training Program, NSA; and **Jacqueline Sullivan**, Acting Program Lead for the DHS National Cybersecurity Training and Education Program

The education programs covered by the designation also include a two-year, professional master's degree program in information systems security, offered by the College of Technology. Ray Cline, chairman of the Information Logistics and Technology department, said the program has grown from eight students in 2007 to more than 50 now.

The master's degree is in high demand from employers – "For qualified personnel, it's zero percent unemployment," Cline said – but completing it isn't easy. Cline said that in addition to technical skills, the curriculum focuses on ethical standards required for the field. Students are required to sign a pledge every semester agreeing to the standards.

"These programs offer Houston-area companies world-class opportunities in cybersecurity education," Conklin said. "Our graduates go on to work in the security operations of some of the world's largest consulting firms, banks, energy companies and software developers."

Message from the Chair



FY15 started with the largest undergraduate enrollment for UH Computer Science in a decade! As an example, the enrollments in freshman level courses that were well below 100, as late as five years ago, are now exceeding 250, with no signs of a slowdown.

This is exciting for us as a department. The economies of Houston, Texas, and the nation need many more qualified computer scientists, and we

are prepared to play our role in making it happen. In fact, the biggest challenge for the department for years to come will be sustaining and enhancing a high quality of education in the face of rapidly increasing enrollments. The challenge is being addressed in a multitude of ways – hiring of new faculty, hiring of qualified instructors from industry, employing automation where appropriate, moving practical assignments from labs to student laptops, and many others.

As an academic department of a major research university, education and research are the central missions of UH Computer Science. Fortunately, we rarely have to prioritize one over the other as they feed off each other. A vibrant research program is critical to building an academic reputation, which in turn, is important for attracting talented students and faculty.

At the same time, the research enterprise firmly rests on the shoulders of students that are hired as research assistants. Departmental faculty members continually strive to raise funding for research, in large part, to be able to hire student research assistants. This is one of the most challenging aspects of being a

professor, as funding for sponsored research is incredibly scarce and competitive.

With that context, I am happy to report that the departmental faculty has been remarkably successful in winning grant proposals. In recent months, we have received one or more grants from the National Science Foundation, U.S. Department of Homeland Security and the U.S. Department of Defense, as well as the North Atlantic Treaty Organization. This is exciting and important, not just because it demonstrates that research teams led by our faculty can compete with the best scientists in the world, but also because it ensures a continued vibrant environment for research and education for years to come.

The department's academic and business operations are managed by teams led by Desi Miller, department business administrator, and Tiffany Roosa, program director. We are fortunate to have two new talented professionals join the team; Melissa Nieto as the program coordinator and Jamie Mettry as the department executive secretary. With new leadership firmly in place and an influx of talent into the team, the service provided to students and faculty alike is excellent and will undoubtedly continue to improve.

I end this message with a shout out to the alumni to participate in departmental affairs. We have a new Alumni of the Year Award for which we are accepting nominations. Articles about and by alumni are welcome in CS Now! And, I invite all readers to contact me with your thoughts and suggestions.

- Jaspal Subhlok

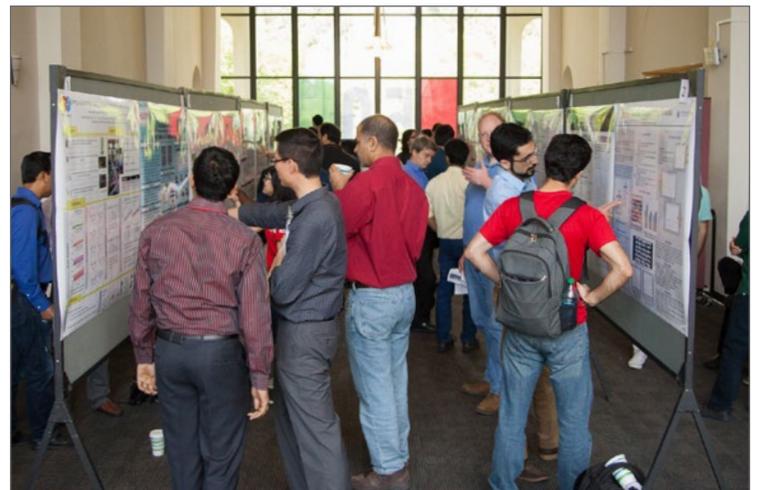
Ph.D. Showcase Features 32 Students

In early May, students, faculty, and guests gathered at the A.D. Bruce Religion Center to hear about the current research of computer science students. The event began with a welcome from Dr. Jaspal Subhlok, department chair, "The Ph.D. Showcase is one of my favorite events because it allows our Ph.D. students to share their research and present their ideas."

The Ph.D. Showcase is an annual departmental event to highlight the research of Ph.D. students. The event gives them the opportunity to demonstrate their research, receive feedback, and exchange information. Throughout the afternoon, 32 computer science students shared highlights of their posters to the entire audience followed by one-on-one discussions with judges, faculty, and guests as they provided in-depth explanations of their poster and research.

"The objectives for this event are to improve the students' research communication skills, to provide feedback related to the students' research progress and presentation of their ideas and results, to encourage scientific exchange of ideas between students and faculty working in different areas, and to promote internal

community development by getting to know faculty and peers," said Dr. Ioannis Kakadiaris, associate chair and general chair of the event.



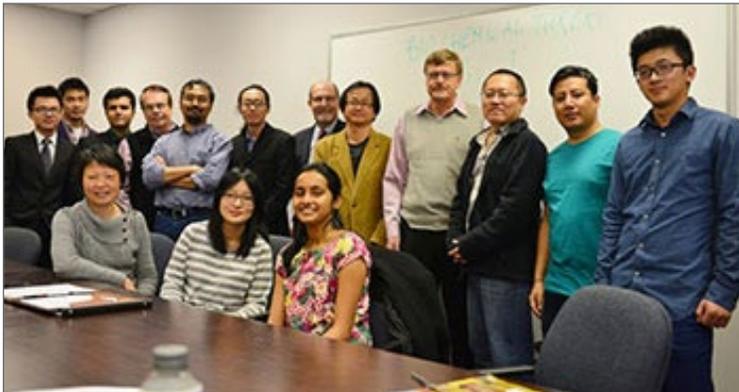
Computer Science Gets Homeland Security Funding to Fight Bioterror

The UH Department of Computer Science received funding from the U.S. Department of Homeland Security (DHS) to conduct research on making biochemical threat detection economically sustainable.

The contract is part of the SenseNet program, which is funded by the U.S. Department of the Interior on behalf of the DHS Science and Technology Directorate. The goal of this award is to design and implement faster, more autonomous, less expensive bio-threat detection systems.

“We explore both technical and market-based innovations to lower the cost of threat-sensing solutions,” said Christoph F. Eick, principal investigator (PI) and associate professor of computer science in the College of Natural Sciences and Mathematics.

The goal of the SenseNet project is to develop multi-tiered, multi-component aerosol detection sensor systems, where biological and chemical detection sensors leverage new commercial systems. The hope is that the resultant architecture makes it possible to map contamination in real time, convey information to multiple layers of decision makers and operate in a cost-effective manner. This research is aimed at enabling an alternative, market-based approach to BioWatch, which is the federal government program created in 2001 to detect biological attacks through a network of sensors.



The detection systems the researchers plan to develop employ state-of-the-art cloud computing, sensor networks, modelling, data analytics and alarm management technologies. The research seeks to widen the customer base for environmental sensors and threat detection services. In addition to acting as an early biochemical

threat detection system, these sensors are being used to provide better security, energy usage, air quality and early warning capabilities. Consequently, the project investigates the use of low-cost biological and chemical aerosol and particle sensors that can be used to provide benefits not only to the DHS, but also to other entities, such as universities, shopping malls and airports.

The project is conducted in three phases with a total planned budget of \$1.8 million for a three-year period. The research team worked on Phase I for which they received the initial \$480,000 to design the SenseNet computational infrastructure.

“The research team is committed to tackling critical scientific challenges that are of great public interests to make our society safer, more secure and create an environment where the community can thrive, prosper and learn from past experience,” Eick said. “In the long run, our goal is to make communities more resilient in dealing with environmental and other threats. This is an area that has recently become a major focus of research in the Department of Computer Science.”

The project, titled “Networking and Computational Infrastructure for Collecting and Interpreting Sensor Data with Respect to Aerosolized Chemical and Biological Threats,” a multidisciplinary effort. In addition to Eick, who is the PI, the co-PIs are assistant professors of computer science Larry Shi and Omprakash Gnawali and assistant professor in the Department of Earth and Atmospheric Sciences Yunsoo Choi. Senior personnel are executive professor Alan Lish from the Bauer College of Business, postdoctoral fellow Anirban Roy from the Department of Earth and Atmospheric Sciences, research associate Lei Xu and project manager Yang Lu from the Department of Computer Science, and assistant director of facilities management Michael Burriello from the UH Central Plant.

Students also have an opportunity to contribute. Offering an interdisciplinary, hands-on project, this research gives students an opportunity to deploy technologies that solve important societal problems, as well as obtain experience in dealing with government agencies. This provides them with skills that serve them well in finding jobs in industry and research labs.

The project is managed by the Chemical and Biological Defense Division of the DHS. This division’s mission is to strengthen the nation’s security and resiliency against chemical and biological threats through improved threat awareness and advanced surveillance, detection and protective countermeasures.

UH Video Games Demonstrated at 61st UH Alumni Association Gala

Recent successes in the UH computer science gaming program in the Imagine Cup competitions and serious game research such as an elementary motor training game for children with Autism Spectrum Disorder (ASD) were exhibited at the 61st annual Distinguished Annual Awards Gala at Westin-Memorial City on May 2. Hosted by the UH Alumni Association (UHAA), more than 500 alumni, friends, supporters and students attended this wildly successful event. Learning about these accomplishments, UHAA requested Dr. Chang

Yun to showcase both the US Imagine Cup winner’s game and motor training games before audiences attending the gala. This was the second time he was requested by the university to showcase them – the first was at Night at the Museum event hosted by UH College of Natural Science and Mathematics (NSM) in fall 2014 where works from departments in NSM showcased their works before NSM alumni. As did in the previous event, his demo succeeded in drawing attention from many attendees.

Living in a World Without Passwords

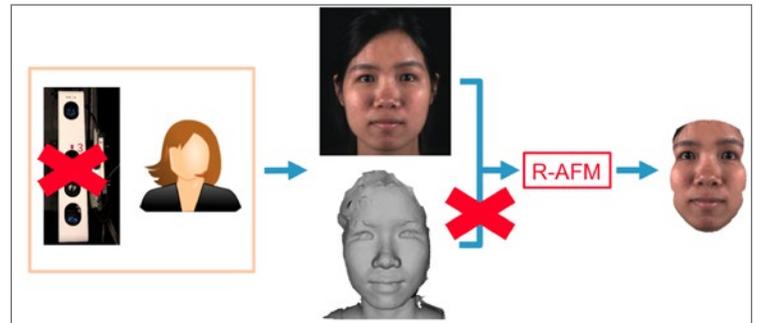
A few days ago, I had to make a call to my new insurance company. It was my first time calling them, and after a short period on hold I predictably found myself acting out a rather familiar scene: “Yes, I am still on the line ... My name is Ioannis Kakadiaris ... Yes, I can spell that for you: I-O-A-N, yes, N as in Nancy, N, no, two Ns, -I-S ... Last name is spelled K-A-K-A, yes, K-A twice, I repeated it on purpose...” I will spare you all the details of the exchange; suffice it to say that it reinforced my conviction that there ought to be a better way to identify and authenticate oneself, especially for those of us who are not named John Smith.



What do I mean? Authentication (from the Greek $\alpha\upsilon\theta\epsilon\nu\tau\iota\kappa\acute{o}\varsigma$, meaning “real, genuine”) is the act of confirming the truth of an attribute of a datum claimed to be true by an entity, much like when I am on the phone with my insurance company, claiming to be the person called Ioannis Kakadiaris. There are several methods for authentication: it can be something that only the person to be authenticated knows (e.g., my password), or something that only the person to be authenticated has (a token, such as the key for my house lock). But, it can also be something that the person is, one of their physical attributes – that is to say, a biometric signature. And the *biometric signature* most of us use multiple times every day, much more often than our name, is our face. Face recognition is about the promise of using our face as a password.

In 1964, Bledsoe, Chan, and Bisson pioneered the development of the first face recognition system. Specifically, a human marked the coordinates of a set of landmarks (e.g., the center of pupils, the inside corner of eyes) in photographs, which were then converted to distances and used to recognize individuals. In 1973, the first automated face recognition system was presented in the Ph.D. thesis of Prof. Takeo Kanade. Since then, research in Face Recognition has received widespread attention due to its many applications. Nowadays, face detection is used by our smart phones to ensure better pictures of individuals, and face recognition is used by both Facebook and Google Picasa to effortlessly tag individuals in our photo collections.

In 2004, the Biometrics cluster of my lab (Computational Biomedicine Lab, www.cbl.uh.edu) initiated research in the areas of face recognition. We pioneered the use of three-dimensional data for face recognition and developed novel algorithms for face (and ear) recognition when both the data in the gallery and the probe are three-dimensional. Our 3D-3D face recognition software ranked first in the 3D-shape section of the 2007 Face Recognition Vendor Test (FRVT) organized by National Institute of Standards and Technology (NIST). In 2010, we created a new research area called 3D-2D face recognition in which the data in the gallery are three-dimensional (imagine that when you get your UH ID, 3D data are acquired) while the probe data (a picture of my profile so I can enter the parking lot) is two-dimensional. Our 3D-2D method outperforms the state-of-the-art 2D face recognition methods by addressing critical challenges in low resolution data, accurate landmark localization, variations of indoor illumination, cross-resolution matching, and score normalization. This development required developing novel methods for: (i) data representations by learning the basis, representation, and metric simultaneously; (ii) classifying imbalanced datasets; and (iii) sparse representations for missing and incomplete data. In 2014, we began bringing to bear all our experience using three-dimensional data by developing a novel method for extracting a three-dimensional face model from a single image. Currently, we are focusing on refining that method, addressing challenges of outdoor illumination and face recognition based on videos.



As we move forward, overcoming the research challenges of pose, illumination, expression, and aging, researchers are cognizant of the need for privacy and respect of the Fourth Amendment of the U.S. Constitution. Keeping that in mind, we are about to witness an explosion of using face recognition to make our life easier using mobile technologies and multiple biometric traits to realize the vision of gaining access by using our face as the password.

Prof. Ioannis A. Kakadiaris is a Hugh Roy and Lillie Cranz Cullen University Professor of Computer Science, Electrical & Computer Engineering, and Biomedical Engineering at the University of Houston. He also holds an adjunct position at the School of Health Information Sciences at the University of Texas, Health Sciences Center. He is the founder and director of the Computational Biomedicine Lab. His research interests include cardiovascular informatics, biomedical image analysis, biometrics, computer vision, and pattern recognition.

UH Students Earn Spot as Finalists in National Microsoft Contest

For the sixth consecutive year, computer science gaming students from UH advanced to the U.S. Microsoft Imagine Cup national finals.

Tyler Swensen, Igor Esteves de Oliveira, John Montgomery and Evan James, known as Team Skybit Studios, earned an all-expenses-paid trip from Microsoft to travel to San Francisco for the April 21-25 competition. At the event, they vied for \$4,000 and the top spot among three other U.S. gaming teams, and also competed for the chance to represent the U.S. in the Imagine Cup World Semi-Finals.



Their game, called “Zoogi Roll,” is a casual, multiplayer, mobile game that offers people an experience similar to marble shooting and Pokémon by controlling a colorful team of living marble characters called “Zoogies.” They came up with the name Zoogi, because the game’s characters are based on animals such as wolves, sharks and sheep. Since they had the idea of using many different kinds of animals, with the player as the “keeper” of them, they decided to use the word “zoo” for their name. Since the Zoogies were designed to be cute, they added the diminutive “gi” at the end to reflect that endearing quality.

The premise of the game is such that the sky in the Zoogi’s world shatters following a massive event, and the king of “Zoogikind” puts out a bounty on the fallen pieces of the broken sky. Once a player has assembled a team, they compete against other players to collect as many pieces as possible.

Players start the game by first picking their team of Zoogies and then searching online for opponents. The players set the Zoogies direction and speed and launch them into an arena to collect points. Players take alternating turns, trying to outmaneuver their opponent or knock them out of the arena. Each Zoogi has its own unique power that the player can use to take advantage, such as explosions to send their opponents flying, jumping high in the air to reach hard-to-access areas or firing projectiles to help collect points faster than their opponent. As the players continue, the points they collect in each individual game can be used to unlock other Zoogies with new abilities.

“The game resembles a marble shooting game people might have played when they were younger,” Swensen said. “We wanted a multiplayer, mobile game that could give people a feeling similar to the experience of playing marble games with friends. We not only saw big potential for how many people we could target with it, but also that it was a casual game we actually would like to play ourselves.”

In the preliminary round, the team had to submit a pitch video. Once that passed muster with Microsoft, they advanced to the semi-final, where they had to submit a playable demo, instruction document, game-related document and the pitch video.

“Imagine Cup has really been my first time in a competitive environment where I’d be judged on all the skills I’ve been acquiring in the years of my education,” Montgomery said. “This competition takes a lot of effort, with numerous team meetings and working through one iteration after another on the game. We also had weekly online meetings with Microsoft about the business side of our game.”

While Swensen and Montgomery are both senior computer science majors, Esteves de Oliveira is a Brazilian exchange student majoring in computer science through the Brazilian Government Interchange Program.

“It has been an intense experience. We not only have to worry about the technology aspects of our product, but also must make our idea attractive,” Esteves de Oliveira said. “Even though it is tough sometimes, it is truly rewarding to see how everything is coming together with such great results. The Imagine Cup helps us push our



limitations and grow as professionals and entrepreneurs.”

The team moved through two rounds of competition to beat out thousands of America’s brightest young computer science students for a spot in the U.S. finals, which involved pitching the project and answering questions from a judging panel comprised of respected Silicon Valley technology leaders and entrepreneurs.

“Once again making the U.S. finals is an unprecedented record, achieved through both the talent and hard work of UH’s computer science students,” said Chang Yun, interactive game development instructor and research assistant professor in the College of Natural Sciences and Mathematics. “In addition to the competition, the students also received exclusive training in tech-entrepreneurship startups.”

Alumni and Students Collaborate at Frontier Fiesta

The University of Houston Computer Science Alumni Association in conjunction with CougarCS student organization participated March 26-28 in UH's Frontier Fiesta, the traditional student and alumni event held annually.

To get a booth for the Computer Science students and alumni, we received support from alumni as well as industry contacts Improving, Pariveda Solutions, and Microsoft. Several dozen students, faculty and alumni participated in the Friday night alumni mixer with food provided and prepared by Zachary Casper on a Bluetooth-enabled smoker, courtesy of Devlin Liles from Improving.

Support for the event also came from our fantastic alumni -- Paul DeCarlo, Michael Walston, Michael Slater, Karis Ng, Zachary Casper, Tobin Thomas, Sabah Akbani, Sammy Larbi, Eric Siebeneich, and numerous others who helped fund this endeavor. Special thanks to Dr. Chang Yun, CougarCS, and all the students who helped us set

up and run the event. We couldn't have had such successful event without them. We hope to continue to collaborate with CougarCS and the Department of Computer Science in the future and to continue our goal of increasing the networking opportunities for CS students



IEEE-NSM Student Branch Offers Many Activities

The Institute of Electrical and Electronic Engineering at the UH College of Natural Sciences and Mathematics (IEEE-NSM) Student Branch was formed in December 2014. The main goal of the IEEE-NSM student branch is to help IEEE fulfill its vision of "Advancing Technology for Humanity." This is done by offering activities, such as lunch and learn seminars, workshops, competitions, Alumni-Experience presentations, Meet & Greet events, and hands-on projects, to the UH student body. We hope these activities will be both fun and beneficial to our student members.

IEEE is the world's largest technical professional association. Through the formation of student branches in colleges, IEEE opens the door to opportunities that will help students develop their professional identity in IEEE's designated fields of interest: sciences, technology, engineering, and mathematics (STEM).

IEEE-NSM Student Branch Activities

- **Student Competitions:** Participate in the IEEEExtreme 24-

hour programming competition, robotics competition, and others.

- **Open Office Hours:** During open office hours, you can often get homework help with basic undergraduate EE and CS classes.
- **Seminars, Talks, Hands-on Workshops:** We host robotics and other workshops, invite guest speakers for seminars and talks, and host a beneficial series of Alumni-Experience presentations where previous students go over their workplace experience from interview to job details.
- **Club Projects:** Bring a project proposal to our general body meetings or email us. If there's enough interest from the club for you to form a team, we may be able to fund it as a club project. Accepted projects include Sentry Gun/Motion Tracking Defense System, a Wii Remote Interactive Whiteboard Project, and a Liquid Cooled PC.

Graduating Students Celebrated at Luncheon

The Department of Computer Science celebrated the accomplishments of over 85 bachelor's students, 69 master's students, and 10 Ph.D. students graduating in Summer 2014, Fall 2014 and Spring 2015.

"I really appreciated the graduation luncheon because attending gave me a strong sense that the faculty and staff truly care about the students and the future of the University, said Dallas Kidd, a graduating student. "It was strongly emphasized that not only do we represent the University in the workforce, but we can also contribute by staying involved and by offering suggestions for improvement and growth. This perspective blurs the transition from school to the workforce and reminds us that we are all still connected to our education."

Dr. Jaspal Subhlok opened the luncheon with a warm welcome and congratulated the graduating students. Keynote speaker Frank

Perez, chief executive officer of Sfile Technology Corporation, applauded the students' accomplishments and provided encouragement to continue to seek knowledge and push boundaries. Dr. Shishir Shah, director of undergraduate studies, and Dr. Edgar Gabriel, director of graduate studies, discussed the success of the graduating students.



Welcome Back Bash Brings CS Community Together, Honors Outstanding Achievements

The Fall 2015 Welcome Back Bash hosted over 200 students and faculty for the new academic year. The event was sponsored by Spectra Energy and organized by the Department of Computer Science.

This two-hour event, held September 18 in the PGH breezeway, brought students and faculty together. Participants enjoyed BBQ catered by Demeris and received red t-shirts with the Department of Computer Science and Spectra Energy logos.

Student organizations, including CougarCS, CSGirls, and IEEE-NSM, shared information about their programs. In addition, two representatives from Spectra Energy joined in the festivities.

Dr. Dan Wells, Dean of the College of Natural Sciences and Mathematics, Dr. Jaspal Subhlok, Chair of Computer Science, Dr. Ioannis Kakadiaris, Hugh Roy and Lillie Cranz Cullen University Professor of Computer Science, and Dr. Stephen Huang announced awards to faculty and students recognizing outstanding accomplishments. The awards included:

Student Awards

Department of Computer Science Scholarship Winners

- Sai Raghu Ram Nanduri, Tyler Rafferty, Muhammad Shah

Computer Science Summer Ambassadors

- Ryan Dickey, Daniel Nguyen, Faysal Sharif

Spring/Summer 2015 Graduates

B.S.

Vincent Diaz
Ryan Do
Keith Dyer
Adam Gomes
Syed Haque
Avinaash Kala
Johnson Koshy
Justin Lei
Ruben Lopez
Gagandeep Singh
Yujie Wu
Adedokun Adeyemo
Anjay Ajodha
Cameron Alexander
Timothy Brown
Alexander Buell
Connor Clark
Benjamin Corbin
Bassem Elghetany
Andrew Feese
Colton Fischer
Steven Hang
Amer Ismail
Andrew Johnson
Noah Kessler
Kurt Laymon

Joe Lu
Rachel Madrigal
Janaye Maggart
Venkatesh Matha
Zachary Nelson
Ricardo Palacios
Victor Perez
Nam Phan
Huy Duc Anh Pho
Alejandro Plata
Rodolfo Ramirez
Nicholas Reed
Logan Stark
Phong Tran
Ryan Vasichko
Christian Wang
Jasmine Wiggins

M.S.

Nikhil Agrawal
Sampath Vinayak Aleti
Praneeth Varma Alluri
Naresh Chowdary Anumolu
Haripriya Ayyalasomayajula (w/thesis)
Shiwani Bector
Tanay Bhargava
Anupam Bhaskar

S-STEM Scholarship Winners

- Faysal Sharif, Sherie Ruter, Stefan Theard

Best M.S. Student

- Ashik Khatri

Best Ph.D. Student

- Panagiotis Moutafis, Xifeng Gao

Ph.D. Showcase Winners

- Dinesh Majeti** Using Accelerometer Data to Estimate Surface Incline and its Walking App Potential
- Muhsin Zahid Ugur** Evaluating Smartphone-based User Interface Designs for a 2D Psychometric Inventory
- Charu Hans** Gradient Weighted Co-Hog for Analysis of Caudalvein Structural Changes in Toxin Exposed Zebrafish Embryo

Faculty Awards

University of Houston Lifetime Faculty Award for Mentoring Undergraduate Research

- Dr. Albert Cheng

Computer Science Faculty Academic Excellence Awards

- Dr. Zhigang Deng, Dr. Larry Shi, Dr. Guoning Chen

Sowmya Bobba
Alessio Paolo Buccino (w/thesis)
Shravani Budur
Arun Chacko
Sri Lakshmi Chilluveru
David Loic Chotard (w/thesis)
Priyanka Dhawad
Narayana Jagdeesh Gopiseti
Satya Deepthi Gopiseti
Aishwarya Gunasekar
Naga Rohit Katta
Zeinab Kazemi Alamouti (w/thesis)
Dallas Kidd (w/thesis)
Amita Anil Kulkarni
Shyam Sunder Kundooru (w/thesis)
Deepak Madisetty
Manasa Manchella
Nikhil Manda
Viswasri Sravya Manikonda
Abhinand Mathukumalli
David Sergio Matusevich (w/thesis)
Anubhav Mehra
Gianluca Meloni (w/thesis)
Imran Mohammed
Anil Kumar Nandamuri
Nikhilesh Nilangekar
Sandeep Pal
Venkat Pasumarthi
Rimmi Dineshkumar Patel

Bhagyasri Pavuluri
Sachin Suryvamshi Potalgude
Pooja Reddy Ramidi
Prudhvi Ravipati
Krishna Swathi Rayanapati
Cedric Pierre Robinet (w/thesis)
Prajakta Avinash Sant
Deepshikha Singh
Adrien Eric Sitter (w/thesis)
Damodar Raju Swamy
Chaitanya Uppaluri
Nishanth Volam
Meenal Vyas
Donald Welch
Yutao Xing
Yajun Yang (w/thesis)
Jinxin Yang
Kalyan Kumar Yelamanchili
Xiaolu Zhang
Xianping Zhou

Ph.D.

Deepak Eachempati
Tao Feng
Paul Hernandez Herrera
Mahbubur Rahman
Roberto Valerio Molina

CONTACT

Sponsors



Submit News

Please submit Alumni News to csnow@cs.uh.edu.

For information on upcoming alumni events, join the **Computer Science at University of Houston** group on LinkedIn.

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