

#### COMPUTER SCIENCE AND TECHNOLOGY DEPARTMENT

#### Kean University (908) 737-3800

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#### News

**NSF Computer Science Scholarship** applications, available online at Department website, now being accepted for Fall 2010.

Student and Alumni
Surveys are being prepared as part of Kean's ABET accreditation process for computer science. These surveys will be sent to each current student and all alums of the past eight years. Please complete your online survey promptly to assist our department in continuing to provide you with an outstanding education.

70% of industry positions in NJ in the next 10 years will be careers requiring degrees such as Computer Science and Information Technology.

# Multimedia: Virtual Reality and Tag Clouds



Swetha Medicherla (CS '10, above), a McNair scholar, will present her research

paper "Visualization for Increased Understanding and Learning using Augmented Reality" at the 11th ACM SIGMM Information Retrieval Conference March 29 –31, 2010 in Philadelphia, PA. This research was conducted as a Students Partnering with Faculty (SpF) project in 2009 with Dr. George Chang.

Johana Callegari (CS '11, right), a NSF and McNair Scholar, will also present her research "Assessment of the Utility of Tag Clouds for Faster Image Retrieval" at the 11th ACM SIGMM IR Conference. Her work was conducted with Dr. Patricia Morreale.



## Verizon Wireless provides career insight to students

Verizon Wireless is

Mr. Andy Wrubel of Verizon Wireless, Basking Ridge, NJ, visited the Department of Computer Science and Technology on October 15, 2009.

Speaking in Hennings Hall to a room full of Computer Science and Information Technology majors, Mr. Wrubel talked about the "legacy" of Kean graduates hired and enjoying professional success at Verizon Wireless. From Rich Fernandez (CS '07) to Ryan Stewart (CS '08) and most recently, Corey Bruno (CS '09), and the summer 2009 internship of Calvin Eric (CS '10), Kean University graduates are well regarded.

committed to being a U.S.-based employer, said Wrubel and currently employs 87,000 people throughout the U.S. to serve 87.7 million customers. The professional pathway, as explained to Kean students attending, is a summer internship, usually after junior year. Summer

internships often lead to

full-time employment.

Current activities that Kean alumni are involved in include mobile phone testing, both hardware and software, including new mobile phone applications which Verizon Wireless expects to share with consumers in the coming year



Ms. Ibtisam Ali (CS '11) received a scholarship from the *Arab American Association of Engineers and Architects (AAAEA)* in Oct. 2009. Ms. Ali is a NSF Scholar. She is working on two research projects, one with **Dr. Halper** and another with **Prof. Wittenberg**.



"Researchers are vital at every level, particularly undergraduate. It is important to get students involved at the earliest possible time. Research is a terrific aspect of computing." -- Dr. Juan Gilbert, Professor and Chair of Human Centered Computing Division, School of Computing, Clemson University, Clemson,

# Spring 2010 Undergraduate Research Presentations:

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Johana Callegari (CS '11) ACM International Conference on Multimedia Information Retrieval March 29 –31, 2010 Philadelphia, PA

Francis Kendall (Math/CS '10) IEEE Sarnoff Symposium April 12-14, 2010 Princeton, NJ

Swetha Medicherla (CS '10) ACM International Conference on Multimedia Information Retrieval March 29 –31, 2010 Philadelphia, PA

Brian Sinnicke (CS '10), Ryan Suleski (CS '10), and Frank Kendall (Math/CS '10) IEEE Systems Conference April 5-8, 2010 San Diego, CA

## Dr. Juan Gilbert visits Computer Science

Dr. Juan Gilbert, Professor and Chair of the Human Centered Computing Division in the School of Computing at Clemson University visited the Department of Computer Science and Technology at Kean University on October 5, 2009.

Dr. Gilbert's visit to Kean was part of the ACM Distinguished Lecturers program. Dr. Gilbert's talk was on his work with
"Applications Quest", a system
he designed with student
researchers. Gilbert's research
projects are in spokenlanguage systems, advancedlearning technologies,
usability and accessibility,
databases and data mining.

The talk in Kean Hall was attended by more than one hundred members of the Kean University community,

including faculty, staff and students. During his visit to Kean, Dr. Gilbert met with Computer Science faculty and Dean Jeffrey Toney of CNAHS.

Dr. Gilbert was also hosted by Ms. Wendy Diaz, Director of the Ronald E. McNair program at Kean, and met informally with McNair students, providing insight on the graduate school application process.

## CS and IT Student Research Accomplishments



Tarik Gelzim (CS '06) has authored Security Enhancement Schemes for Wireless Networks: Deploying Neural Nets and Digital Signatures, VDM Verlag Press, 2009.

Tarik, an Honors Graduate from Kean, worked for Siemens Corporate Research (SCR) in Princeton, NJ as a Software Engineer before joining Sagem Sécurité Maroc in Casablanca, Morocco. Sagem Sécurité is a world leader in digital fingerprint biometrics and associated multibiometric technologies, as well as smart cards, secure transactions, and ID management solutions. Sagem has partnerships world-wide with firms such as Hitachi, IBM, and the U.S. FBI to provide secure identity solutions. While at Kean, Tarik worked during the summer of 2005 with Dr. **George Chang** as part of a Students Partnering with Faculty (SpF) research grant.

Ibtisma Ali (CS'11) will present her compiler design work "History of Computing: Fortran Coming to Life" at Kean University's Research Day on April 8, 2010. This work was conducted under the supervision of Prof. Lee Wittenberg. Ibtisam Ali joined Dr. Michael Halper last fall on an NIH grant project to develop enhanced interfaces for controlled medical terminologies and ontologies. She is currently developing software to enhance access to and visualization of aspects of the content of the National Library of Medicine's Unified Medical Language System (UMLS). Her software incorporates novel control functionality with the use of the "Wiimote."

Sujity Bhashyam (CS '12), Jay Patel (CS '12), and Gregory Egan (CS '12), are working with Dr. Jing-Chiou Liou to modeling software security threats. This project, "On Software Security **Breaches Resulting from Embedded Sleeping** Agents" studies patterns of software security breaches and technology used in authentication which will lead to better software engineering for more robust systems to protect against internal and external threats.

Frank Kendall (Math/CS '10), Brian Nicewonger (IT '11), and Elizabeth Savoia (Math/CS '12) with Prof.
Carolee Stewart-Gardiner, are continuing their project on Peer-Led Team-Learning, which seeks innovations in algorithmic thinking.



Ryan Suleski (CS '10), Brian Sinnicke (CS '10), and Frank Kendall (Math/CS '10), shown above, presented a research poster of their Students Partnering with Faculty (SpF '09) work, "Knowledge Discovery from Sensor Data for **Environmental** Information", presented at IEEE Supercomputing '09, in November 2009. This work was completed under the supervision of Dr. Patricia Morreale.

Summer research information is available from department faculty. Contact a faculty member you'd like to work with and join our team!

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