



CS DEPARTMENT TEAM LAUNCHES FIRST MOBILE APPS



A dedicated group of CS and IT students has worked to create two mobile applications. Built at the request of Reverend Higgs, the pastor of the First Presbyterian Church of Elizabeth, NJ, a strongly motivated, adaptable group of Kean CS and IT majors began work in September to build both an Apple iPhone and an Google Android phone app to support historical researchers who want to know more about the burial grounds at the First Presbyterian Church. The team, under the direction of Carlos Silva, self-organized into two groups. The Apple iPhone development team, working in Objective C, was under the leadership of Josh Lisojo, with Allan Goncalves, Nathaly Lozano, and Harold Liao all contributing in areas of map and features, while Josh handled search functionality. Daniel Church led the Google Android development team, with Dev Das, Steve Holtz, and Jugal Shah working on map, features, and search, respectively. Jason Bonafide supported both teams, serving as database developer and administrator.

The Apple iPhone emulator was used to build the Apple screens, while the Android OS required expertise in Java and XML. The project was very challenging, as each team worked hard to mirror the other team in search functionality and features. The Apple app (**fpc Cemetery** app) debuted in the Apple store mid-March, with the Android app (**fpc** also!) arriving in the Android store in April. Download the app and check out the features!

RECENT & FUTURE ALUMNAE PRESENT AT NATIONAL COMPUTING CONFERENCE

The Grace Hopper Celebration of Women in Computing held Oct. 3-6, 2012 in Baltimore, Maryland is the largest gathering of women in computing. The annual conference is designed to highlight and share the research interests of attendees. The conference offers research and educational programs and includes researchers from industry, U.S. government, and academia.



This year, a group of recent Kean University alumnae and one future alumni (a current student) from Kean University presented their research poster at the conference. Rosangela Arlequin (CS '12), Lauren Aguilera (CS '12), Yerika Jimenez (CS '14), and Farah Zabe (CS '12) attended the conference. Lauren, Yerika, and Farah presented their research poster, *Innovative Programming Environments: A Comparative Study of Alice & Android App Inventor with High School Students*. Co-researchers also include Marvin Andujar (CS/Math '12), Luis Jimenez (CS '14) and Jugal Shah (CS '13).

Rosangela and Lauren were selected by the Anita Borg Institute to receive scholarships to attend the conference. Earlier this year, Rosangela was the recipient of a \$10,000 Google HCF scholarship. Rosangela, Lauren, and Farah graduated from the Department of Computer Science in May 2012. Yerika Jimenez is an undergraduate majoring in computer science. All four students were involved in undergraduate research during their time at Kean with research mentor Dr. Patricia Morreale. Rosangela, Lauren, and Farah were also NSF CS Scholars at Kean and participated in the Ronald McNair program, as does Yerika. Rosangela is completing her M.S. in Computer Science and will be joining CA Technologies in June 2013; Farah Zabe joined IBM in Boston in February 2013. Lauren has been working as a web-developer at Metro in New Jersey, while finishing her M.S. in Computer Science. Yerika will be at Clemson University this summer, as part of the CRA CREU program, working on research on computers and young children. Rosangela, Lauren, and Farah made contacts with firms at Hopper that later made them job offers.

The Hopper Conference is held annually and this is the first year that Kean students have presented their research at the event. Last year, Jessica Howard (CM '10, MS '11) attended the conference and encouraged other students to consider attending. This year, four more Kean students are attending. "We expect a lot from our students – and they are rewarded for their hard work", said Dr. Morreale, "They should enjoy the opportunity to share their ideas with others at this conference. Their work was outstanding!" Applications for Hopper 2013 are now available at <http://gracehopper.org/2013/>

STUDENT STORIES



Carlos Silva (CS '13, MS'14), an undergraduate student enrolled in the 5 year/BA/MS program, participated in the New Jersey Governor's CyberChallenge and placed 12th. With a total of 249 participants, this joint initiative of Governor Chris Christie and Cyber Centers aimed to find new talent in cyber security, a rapidly growing economic necessity and a vast field in Computer Science. Kean offers an undergraduate course in cyber security – Dr. Jing-Chiou

Liou's CPS 3498 Computer Security.

Michael Lockshiss (IT '14) has just completed a series of IT internships. He was a Dell Field Technician, and also worked at Alcoa (Newburgh, Indiana) in the IT department, overseeing a site-wide systems upgrade. After the conclusion of his work at Alcoa, he joined St. Mary's Hospital, part of the Ascension Health Systems group in Indiana, where he worked on the Quest Project, which involved systems integration in support of digital medical records. Michael has completed his CCENT certification and is working on his CCNA certification.

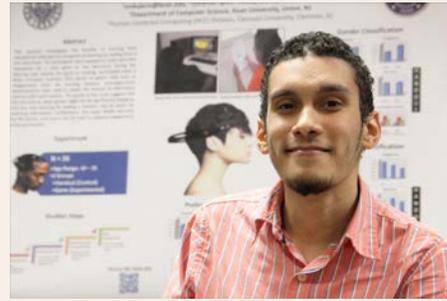


Yerika Jimenez (CS '14) is a visiting undergraduate researcher this summer. She joined a research team investigating learning styles at the Human-Centered Computing Division, Clemson University, Clemson, SC.

Luis Jimenez Villanueva (CS '14) will be engaged in sensor and robotics research this summer in the lab of Dr. Ricardo Gutierrez-Osuna Computer Science and Engineering Texas A&M University in College Station, Texas.



ALUMS, One Year Later...



Marvin Andujar (CS '12) is enrolled in a Ph.D. program at Clemson University. He is working with Dr. Juan Gilbert, who he met when Dr. Gilbert visited Kean University in

the Spring of 2010. Marvin has had a successful year, attending SIGCSE '13 in Denver where he presented a research poster of work conducted at Kean University in 2011-2012, and he has just returned from SIGCHI '13 in Paris, France, where he presented a paper based on his work in Human Computer Interaction (HCI) at Clemson. Just after he left Kean, Marvin learned he had received a GEM 2013 Ph.D. Fellowship Award (1 of 85 nationally, 1 of 16 with Intel summer internship), and he will be spending his summer in California, with Intel.

Rosangela (Arlequin) Moreno (CS '12) will receive a M.S. in Computer Science from NJIT in May 2013 and will be joining CS Technologies as a Software Quality Assurance Engineer. She met CA Technologies team during the Grace Hopper Conference in October 2013, and went through a rigorous interview process including both technical and behavioral component. She encourages other Kean students to attend the Grace Hopper Conference, as she considers it a very good professional networking event. She also recommends the Society of Hispanic Professional Engineers (SHPE) conference -- both Hopper and SHPE are attended by employers seeking CS and IT graduates.



Advising counts!

Every CS and IT major has an *assigned* faculty advisor. See your advisor for information about courses, internships, research opportunities, and future career plans: *Grad school or industry?*

SPRING CAPSTONE PROJECT PRESENTATIONS

Spring 2013 Capstone Project Presentations took place April 30th and May 7th. All graduating seniors in Computer Science or Information Technology must take Senior Project or Senior Research, referred to as the "capstone" course, designed to provide students with an opportunity to demonstrate their expertise with an individual project of their own selection, which they propose, develop, and demonstrate, in an outstanding manner. Always the highlight of the year, the culminating presentations are exciting to attend. This year's projects include a range of innovative ideas; a few projects are listed here:

Automated Shopping Lists - scan the barcodes of your empty goods....to create your shopping list!

You Heard It Here - a website to connect musical artists and the music business industry

Where's It At?! - an activity recommender based on GPS location and/or zip code.

Fish Tank Monitor - hardware to monitor your fish while you are away, and broadcast the images to others.

Fencing Scorer - display game and match scores based on sensor information from the tip of the epee.

Next year's seniors – get your thinking caps on! What will you create and share with us with next spring ?

KEAN CS STUDENTS DEVELOP GAME FOR MIDDLE SCHOOL STUDENTS



(Photo, left) **Jennifer Latham (CS/Math '13)**, **Nathaly Lozano (CS '14)** and **Jennifer Greene (Math '13)** on site at Roselle Park Middle School, Roselle Park, NJ, where they worked with middle school students during fall semester 2012.

A team of undergraduate student researchers, pictured, worked with Professor Carolee Stewart-Gardiner of the Department of Computer Science, and developed a game for middle school students, particularly girls. Once developed, they took the game to Roselle Park Middle School and shared it with students in an after-school enrichment program, receiving rave reviews from the students.

During June 2012, Nathaly Lozano and Jennifer Latham taught themselves how to create a game using Game Maker, learning the Game Maker Language (GML), an interpreted scripting language, along the way. In the summer of 2012, they created *Gram's Grocery Shop*, based on an earlier game called *Gram's House*. The Kean game designers wanted to improve the fun players would have with the game experience so they included two mazes into the game, where the player would collect coins which could be later used to purchase food in the store. They also included a word game of spelling the shopping list items, to see if girls preferred word puzzles.

A pre-survey was used to determine player demographics, technology background, and attitudes of the students who would be piloting the game. Two game-like quizzes were used to determine the extent to which players were learning computer science principles. In September and October, the team piloted *Gram's Grocery Shop* with teenage girls at Roselle Park Middle School. During October and November they collected, transcribed and analyzed the data. The post-survey showed that, of the students remaining to the 5th week, 54.3% said that modifying the design of *Gram's Grocery Shop* was their favorite part of the whole pilot program. These middle school girls view themselves as being capable of designing computer games in the future. *Gram's Grocery Shop* is viewable on Prof. Stewart's Kean web page at www.kean.edu/~cstewart/.

On April 5-6, 2013, Prof. Stewart's team presented both a paper and poster of this research work at the CCSCNE2013 conference at Sienna College in Loudenville, NY. A research poster was also presented at Kean's Research Days April 23-24. Planning is underway for future game revisions and testing. This summer research was funded by Kean's SpF program.

FACULTY RESEARCH ACTIVITIES

On March 21st, Kean University's Department of Computer Science Adjunct Professor **Anil Bharucha** joined the ACM for a meeting to identify and discuss some of the essential skills needed for a rewarding career. He shared his experiences as a technical industry professional for over 25 years with Kean Computer Science and Information Technology majors, as part of the regular ACM Guest Speaker series.

Prof. Bharucha has worked for Western Union, Timeplex, and AT&T Bell Labs during his professional career. He has seen technology evolve over the years from low-speed packet switching, TDM, private line, and dial-up services to the proliferation of TCP/IP and the rise of the information age. Members of the Kean Student Chapter of the ACM were able to ask questions of Prof. Bharucha and gain insight into getting their careers started on the right track.

During his talk, Prof. Bharucha stressed the importance of networking, keeping up with the profession, and career evolution. Professor Bharucha holds both a B.S. in Electrical Engineering and a M.S. in Telecommunications Management from Stevens Institute of Technology.



Kean ACM Student Chapter Update

The ACM has been busy, hosting Prof. Bharucha, as well as a talk by Jugal Shah and Jason Bonafide on mobile application development. In April, a two-part series of robotics workshops were held, with Luiz Jimenez facilitating. These well-attended events were a good introduction to Tech 4440 Robotics, a fall course offering.

Jugal Shah, Allan Goncalves, Nathly Lozano, and David Heer, the leadership team for spring 2013, have turned over leadership to the new incoming ACM Executive Board (e-Board) with Luis Jimenez, as President, and Nathaly Lozano as Vice-President. Planning is underway for 2013-2014 activities. Join us in Willis Hall, Room 400 on Thursday afternoons!



Emanuel Liens (CS '14) displays his robot, built in Tech 4440 fall 2012.

CONFERENCE INFORMATION

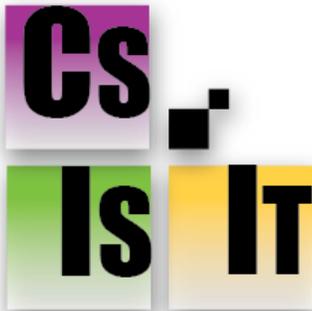
Apply for scholarships to attend:

Grace Hopper Conference: www.gracehopper.org

SHPE Conference: www.conference.shpe.org/shpe2013/

Tapia Conference: www.tapiaconference.org

October 2-5, 2013 Minneapolis, MN
Oct. 30 – Nov. 3, 2013 Indianapolis, IN
Feb. 5-8, 2014 Seattle, WA



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