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Computer Science Teams ‘Compute Together’ at summit.cs

Hundreds of UCSB computer science students and industry VIPs came together for the first-ever summit.cs, an opportunity for the department’s undergraduate and graduate students, faculty members, alumni and corporate partners to share innovative ideas and make connections.

The daylong event included a keynote address, capstone project competition, poster session and a host of talks and networking opportunities for students, industry representatives, and faculty members.

Among the companies lending their support to capstone teams and making the summit.cs event possible were Citrix, Appfolio, Google, Qualcomm, Graphiq, Microsoft, Northrop Grumman, Novacoast, Procore, and Sonos.

Massachusetts Institute of Technology distinguished lecturer Shafi Goldwasser delivered the event’s keynote address. Goldwasser, a 2012 recipient of the Turing Award, has made fundamental contributions to cryptography, computational complexity, computational number theory and probabilistic algorithms. Her talk included an overview of how revolutionary and nearly paradoxical ideas from the theory of cryptography have impacted the theory of computing in general. Additionally, she explained how in the future these techniques will play a fundamental role in developing solutions to many security challenges in present-day computing infrastructures, especially those based on the cloud paradigm.

Summit activities also included nine undergraduate capstone presentations. Teaming with industry leaders, students worked on RFID-based localization; collaborative playlists management; an augmented-reality interface for construction projects; thermal camera tracking and actuation; encrypted search; drone vision tracking; data visualization; collaborative coding for instruction; and a social hub for musicians. Capstone projects give students the opportunity to go fully hands-on, translating theory and research into action. Add to this the give-and-take experience of working in small teams to solve problems, assess alternatives and ultimately agree on a final deliverable.

Taking first, second and third places, respectively, were Team “CitrixNChill,” mentored by Citrix; Team “Under Construction,” mentored by Procore; and Team “Euphoria,” mentored by Sonos.

“Capstone courses provide an excellent opportunity to do something interesting and ‘real’ that showcase students’ abilities,” said Tim Sherwood a professor of computer science at UCSB, the key organizer of the summit event. “Prospective employers value the ability to understand, explore, and present innovative solutions to real-world problems that are at the core of capstone courses.”

An outdoor poster session in the middle of the day provided additional opportunities to networking among attendees. Each of the undergraduate capstone teams, along with graduate and undergraduate researchers were on hand to explain their ongoing research, and, in some cases, provide demonstrations of their creations. In addition, student organizations related to computer science discussed their activities and how students, alumni, faculty, and guests can get involved.

Other activities included the Graduate Student Workshop on Computing, which allowed students to learn about industry advancements directly from the people making them. In one session, students delivered talks that highlighted new and important ideas generated by their peers, and provided a firsthand look at in-progress research happening across the Department of Computer Science.

In another session, sponsored by the Array of Talks project, former UCSB students shared their perspectives and experiences as computer science majors and discussed after graduation. The panel was sponsored by the Array of Talks project, an initiative aimed at inspiring enthusiasm for computer science, intellectual exchange and a sense of community among computer science undergraduates,

faculty members and business professionals.

The final session took a look at the future of computer science. Among those sharing their expertise were Matthew Turk, a UCSB professor of computer science; John Martinis, a UCSB professor of physics whose research team is working with Google to produce new quantum processors based on superconducting electronics; Somdeb Majumdar of Qualcomm Research; and Paul Gader of the University of Florida.

More information about the capstone projects, the Graduate Student Workshop on Computing and Array of Talks can be found at https://capstone.cs.ucsb.edu/teams.html, http://gswc.cs.ucsb.edu/2016, and http://arrayoftalks.cs.ucsb.edu, respectively.

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