

CAL POLY CSC Voices

DEPARTMENT OF COMPUTER SCIENCE & SOFTWARE ENGINEERING | **SPRING 2011**



'IN' VISION

DreamWorks shares the magic of 3D

Advancing Learn By Doing

CSC students experience 'the magic of computing'

Another academic year is coming to an end – a year filled with excitement, outstanding achievements and success stories attributed to our students, faculty and staff. I am honored to serve as chair of a department that continues to improve Learn by Doing, which comes alive by the synergies of passionate faculty members and great students in a cadre of new laboratory facilities. This edition of *Voices* offers you a sampling of their exceptional work.

A major curriculum innovation has been under way since fall 2010. All first-year students are given a choice (first quarter) to get a taste of “the magic of computing” by selecting a course from a menu that introduces algorithmic thinking using robotics, game design, app development, art and music composition. This new menu of courses is unique to Cal Poly, teaching computing within a context, while providing choices better aligned with student interests. In addition, a couple of the new technical electives include new courses in mobile computing (Android, iOS), multicore programming, web technologies and data mining.

Our speaker series is a true success, elevating the department's visibility in many sectors with presentations by Scott Peterson, PDI/ DreamWorks, and Marissa Mayer, Google. These and other outstanding speakers have attracted audiences from all sectors of the University, the City of San Luis Obispo and beyond.

A number of our female majors attended the fall 2010 Grace Hopper Conference, and their amazing experiences are empowering their female peers. Our department has made a commitment to send a large number of female majors to the conference each year. We hope that with your support we will continue to empower CSC's young women.

Our outstanding Learn by Doing method cannot succeed without the development of unique laboratories. We are extremely grateful for your generous support, which made possible the department's dedicated

laboratories in intelligent robotics, game design/interactive entertainment, Apple technologies and cybersecurity. We are actively seeking your support to develop a cutting-edge human computer interaction (HCI) laboratory this summer. Please take the “HCI Lab Challenge” by visiting our website at <http://www.csc.calpoly.edu>.

As you will read on the opposite page, about 200 alums and friends of the department gathered last October at the DreamWorks studios in Glendale for an evening of celebration and human networking. Our department is planning the next alumni event for October 2011 in Silicon Valley. Please stay tuned for more info.

I am confident that you will enjoy this edition of *Voices*. As you know, Cal Poly and our department are in the midst of some difficult financial times. In order for us to provide the best educational experience to our students, retain our amazing faculty colleagues and continue to upgrade our infrastructure, your help and direct involvement are needed more than ever.

A comprehensive campaign is being rolled out seeking non-state support for our tactical and strategic initiatives. I will be honored to hear your ideas, provide more information and work with you in building an even stronger department. Please help us show the “magic of computing” to our students, so they can better serve industry and society.

Stop by so we can chat, or contact me at ivakalis@calpoly.edu or 805-756-6285.

Respectfully,

Ignatios Vakalis
Chair, Computer Science Department



Ignatios Vakalis

A major curriculum innovation has been under way since fall 2010. All first-year students ... get a taste of 'the magic of computing' by selecting a course from a menu that introduces algorithmic thinking using robotics, game design, app development, art and music composition. This new menu of courses is unique to Cal Poly, teaching computing within a context, while providing choices better aligned with student interests.



MELANIE PETERSON/CENTRAL COAST REFLECTIONS

FUN IN 3D

DreamWorks opens doors to CSC alumni and faculty for dinner and a movie

By Cindy Bitto
Administrative Analyst Specialist

DreamWorks was a dream! The animation studios opened its doors to Cal Poly grads and current faculty members for a beautiful alumni event and an exclusive 3D preview screening of its latest movie, "Megamind."

Key speakers included alumnus Mark Lucovsky of VMware, Cal Poly Interim President Robert Glidden, DreamWorks Chief Technology Officer Ed Leonard, Cal Poly Software Engineering senior Alyssa Daw, and Department Chair Ignatios Vakalis.

In a beautiful lagoon setting, alumni and professors shared memories and a memorable dining experience. Many thanks to



A poster promoting the studio's latest 3D release



DreamWorks Head of Production Jim Mainard (above, left), the company's Chief Technology Officer Ed Leonard (right), and CSC alumnus Mark Lucovsky (left).

Tom McGrath, the director of 'Megamind,' addresses guests (top).

Jim Mainard, DreamWorks production head and Computer Science Industry Advisory Board member, and his colleagues for their gracious hospitality!

Nerdy? Not!

Grace Hopper Conference proves inspiring and fun for female computer scientists

By Zoë Wood
Assistant Professor, Computer Science

In conjunction with the Women Involved in Software and Hardware (WISH) student club, the Computer Science Department sent nine students and two faculty members to the 10th Grace Hopper Conference, held last fall in Atlanta, Ga.

Faculty member Julie Workman and I accompanied a group of CSC, CPE and SE majors that ranged from sophomore to master's level. The students were Karina Cordon, Tracy Davies, Alyssa Daws, Christina Forney, Jenee Hughes, Stephanie Krapil, Halli Meth, Melina Shak and Lauren A. Thurston.

The Grace Hopper Celebration of Women in Computing is a series of conferences designed to bring the research and career interests of women in computing to the forefront. Approximately 2,000 people – half of them students – attended last year.

The Cal Poly students valued the chance to meet with companies interested in hiring students and to attend a variety of technical talks and activities.

"I really enjoyed learning about the opportunities there are to combine computer science with other fields," commented student Halli Meth. "For example, computer scientists can apply concepts from programming to solve some of the environmental issues facing our planet. They can help revive the diminishing fish population or renew bird migratory patterns.

"I also really liked how everyone at the conference seemed to share the same belief that computer science is more than nerdy people coding. It totally defied the stereotype that computer scientists must love spending hours coding. It's more than that; it involves social interaction, innovation and so much more."

The department plans to send students to this inspiring and informative conference every year. Please contact us at 805-756-6285 if you wish to support this endeavor.



Cal Poly WISH members at the 2010 Grace Hopper Conference (right and below)





Sweet Success

Google VP Mayer discusses company's achievements

By Ignatios Vakalis
Chair, Computer Science Department

In February, Marissa Mayer, vice president of consumer products at Google, captivated an audience of more than 1,100 attendees with the "magic of computing." The campus Performing Arts Center was packed with Cal Poly and high school students, faculty members, staff, administrators and professionals from the city of San Luis Obispo, eager to hear about the current innovations at Googleplex.

Marissa delivered a talk focusing on various innovations related to mobile computing, geo-location applications, image and speech recognition capabilities of the Android mobile platforms, as well as recent advancements in search capabilities.

Marissa joined Google in 1999 as the company's first female software engineer. She has held numerous senior positions leading the product management and engineering efforts of Google's local, mobile and contextual discovery products, including Google Maps, Google Maps for Mobile, Local Search, Google Earth, Street View and Latitude.

As an honored guest of our Computer Science Department, Marissa visited the Android App Development class and critiqued some student-developed apps.

She was also the guest of honor at a special reception organized by the Women Involved in Software and Hardware (WISH) student club. WISH members provided colorful cupcakes (a favorite of Marissa's)



Ca Poly WISH members hosted a cupcake reception for Marissa Mayer, Google Consumer Products VP (top, center).

reflecting Google's colors and enjoyed the opportunity to spend time and informally chat with their role model. The students discovered that Marissa studied ballet, philosophy, computer science and specialized in symbolic systems and artificial intelligence, and that she loves fashion (especially Oscar de la Renta), skiing, desserts and Lady Gaga (see http://www.youtube.com/watch?v=hNa_-1d_OtA).

We were indeed very grateful and honored to host Marissa at our department and at Cal Poly. We are currently working with Google to schedule more talks by various senior VPs for next year.

By Alex Dekhtyar
Faculty Advisor, Cal Poly Ignite Club

"Enlighten us ... but make it quick" says the tagline of Ignite, the series of events that involve five-minute-long presentations accompanied by 20 slides that auto-advance every 15 seconds. The presentations are about life, the universe and everything, but because Ignite events originated in the depths of O'Reiley Media, they have a definite techie- and geek-friendly bent.

During the 2010-11 academic year, thanks to a group of dedicated students from the Computer Science Department, Ignite came to Cal Poly. It all started last May, when a group of CSC students and faculty members attended Google I/O, a two-day technology conference hosted by Google at the Moscone Center in San Francisco.

After a long day of keynote talks, technical demonstrations and two-hour panels on the future of computing, a few Cal Poly CSC folks stumbled upon open doors with the distinctive Ignite logo on them and a vague promise of something fun. Then, for an hour we were entertained by ten awesome people telling us about crossing the Atlantic on a rowboat, origins of memes, fighting zombies, building battleship models and other no less thrilling things.

Upon returning to San Luis Obispo, there was only one thing that could be done: create an Ignite series on campus. For the trial balloon, nine faculty members and students presented at a WOW Ignite session



Club sparks student interest with fast-paced presentations and pizza

organized by the Computer Science Department for the incoming CS and SE majors. The talks were designed to give students an overview of student and faculty perspectives of computer science and experiences at the department. Incoming freshmen liked what they saw, presenters liked presenting, and so, the Cal Poly Ignite club was born.

For the 2010-11 academic year, the club – currently residing in the Computer Science Department – set modest goals of organizing one on-campus Ignite event per quarter and slowly growing the outreach beyond the CS/SE/CPE programs. Three events, 28 talks and more than 20 faculty and student speakers later, the barely year-old club has met its goals.

Cal Poly Ignite audiences, which grew with every event, were treated to faculty members reminiscing about their computer science careers, summer travels and upcoming courses, and students talking about computer games and zombies, experiences in the classroom and out, travel, hobbies and theories concerning why we still cannot travel in time.

This year's Ignite club officers – Nick Artman (B.S., SE), Massimiliano Becker (M.S., CS), Annie Beug (M.S., CS) and Andrew Chan (B.S., CS) – did a terrific job finding speakers and organizing, promoting and running the events.

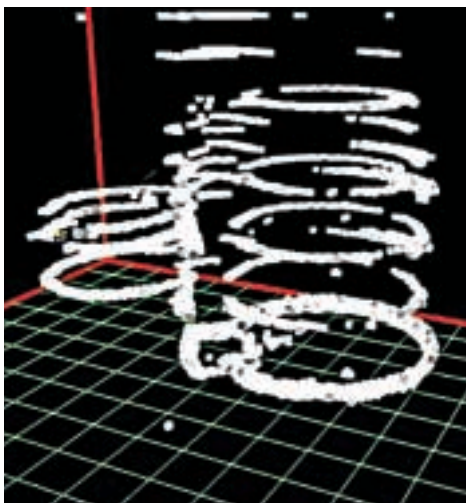
Why bother? Ignite talks have strict constraints (20 slides, 15 seconds per slide), which make preparation a challenge. But it's a fun way to share one's passions and hone one's public speaking skills without taking a public communications course. And for those in the audience, it's a fun, fast-paced event, accompanied by pizza and root beer!

If you are interested in getting involved with the Ignite club in 2011-12 and/or are interested in presenting at a Cal Poly Ignite event, please email Alex Dekhtyar (dekhtyar@calpoly.edu), who will promptly put you in contact with the club.

We are looking forward to a new year of Ignite events at Cal Poly!

Ignite members, from left: Andrew Chan, Max Becker, Nick Artman, Brian Panque, Annie Beug, Chrishna Forney, Julie Workman, Clark Turner and Alex Dekhtyar





From data they collected, students created the first-ever 3D maps showing the structure of a cistern.

Cal Poly group explores underwater archeology via robots and computers

By Christopher Clark
Associate Professor, Computer Engineering

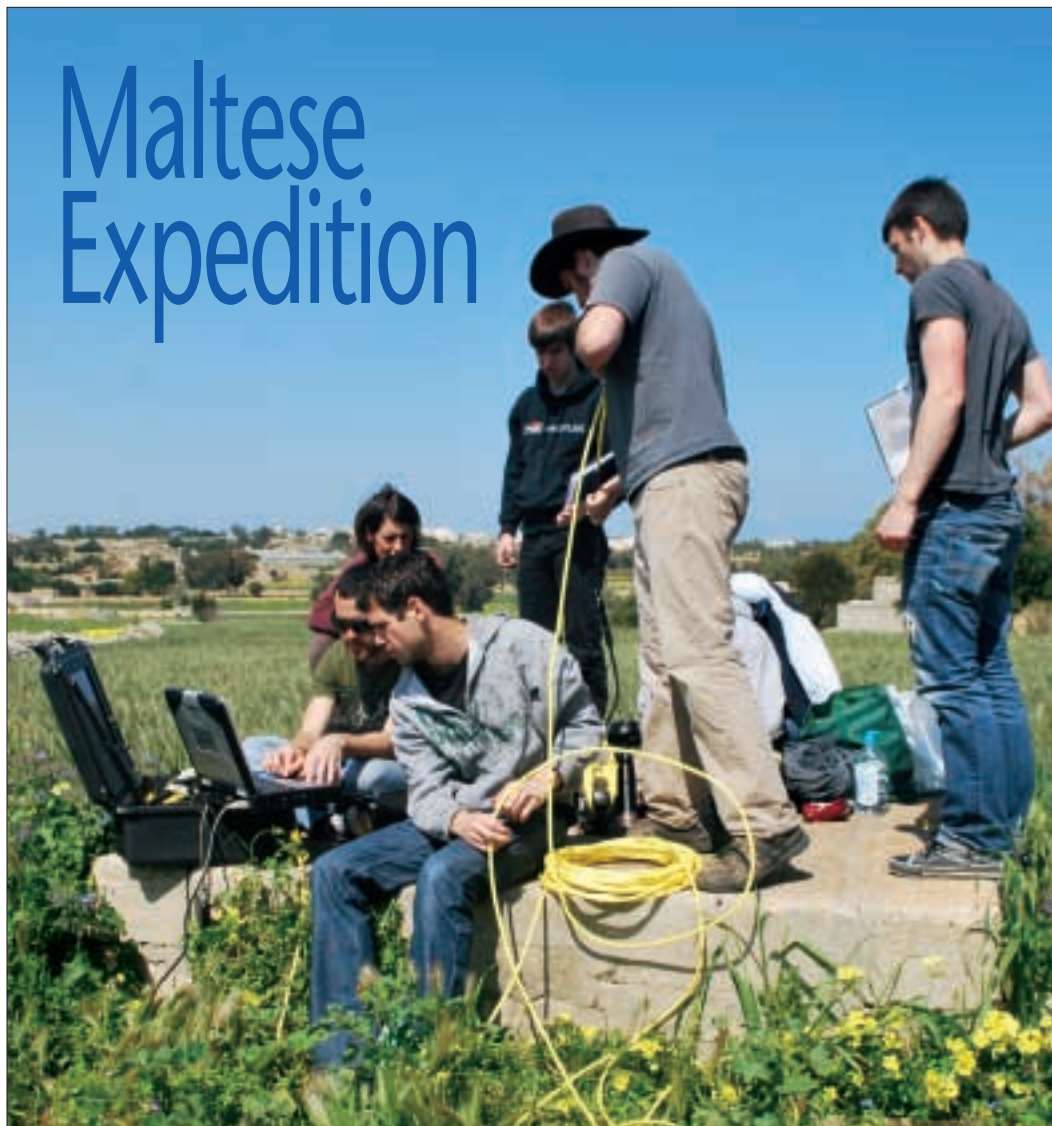
Eight Cal Poly students and three faculty members traveled to Malta for this year's International Computing Engineering eXperience (ICEX) program, held Feb. 27-March 27.

The students collaborated with marine archeologists from the Aurora Special Purpose Trust and the University of Malta to investigate previously unexplored underwater archaeological sites.

With Cal Poly colleagues Assistant Professor Jane Lehr of Ethnic Studies/Women's & Gender Studies, and Assistant Professor Zoë Wood of Computer Science, I worked with students to develop and use Simultaneous Localization and Mapping (SLAM) algorithms to construct 3D maps, as well as new 3D visualization techniques for underwater robotics applications.

Over 27 ancient cisterns (underground water storage vessels) were explored and mapped. Data from a WWII shipwreck was also obtained using a robot equipped with sonar and cameras.

Working together, the team has produced the first-ever 3D maps of these ancient Maltese cisterns. The students returned home with a greater understanding of robotics, computer programming, Maltese history and cross-cultural engineering.



Students lower a sonar-equipped robot into an ancient cistern to collect video and sonar data (above).

The group launches a Cal Poly AUV (left) in the Mediterranean to test navigation capabilities for future missions.



LAIR

Lab gives students space to develop mobile robots

By Christopher Clark
Associate Professor, Computer Engineering

In fall 2010, we opened the doors to the Cal Poly Lab for Autonomous and Intelligent Robotics, aka the LAIR. Located in building 4-115, the lab offers an ideal place for designing, building, testing and programming mobile robots. Funded mainly through NSF grants, C3RP grants and private donations, it's a fully functional research facility housing over a dozen robot platforms.

In the last year the lab has received generous donations from Ronda Hruby, who equipped the lab with a full tool set and bench; Lockheed Martin, who helped purchase a test pool for underwater robots; and Agilent Technologies, who provided an oscilloscope, and a multi-meter, function generator and power supply.

A steady stream of students and projects have already benefited from the lab, including the current four master's student projects, seven undergraduate student projects and the eight students who participated in the 2011 International Computer Engineering eXperience (ICEX). The lab is also providing development space for a team of students who will compete in a National Underwater Robot Competition.

With emphasis on research in underwater robotics and multi-robot systems, the lab is already producing student-authored material for peer-reviewed conferences and journals.

In the past, the students have traveled to Malta, Norway and the Arctic to conduct robot deployments in the field. The future looks bright for the lab's current and future students who in the next year will travel to Hawaii, New Hampshire and Spain.

One of the most notable current projects, titled "Shark Tracking with Multiple Autonomous Underwater Vehicles," will equip AUVs with the ability to track and follow sharks tagged with acoustic emitters. Like most of the work in the lab, this project is interdisciplinary, requiring collaborations with researchers from Marine Biology.

Students Jennifer Batryn and Brig Bagley prepare to perform a buoyancy test on the IVER2 AUV (above).

Jennifer and Professor Clark inspect the AUV's wireless connection box before an underwater test run (right).





Students Mike Buerli, Brent Dimapilis, Trent Ellingsen, Jeff Good, Teal Owyang, Jonathan Rawson and Ryan Schroder developed a game called Lume (top).

A ray-traced image by Harrison McKenzie Chapter (below)

A ray-traced image by Bradley Barbee (bottom)



Artistic Computing

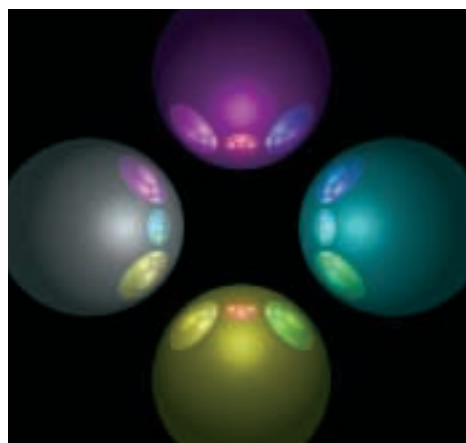
Student creativity shines in Interactive Entertainment Lab graphics projects

By Zoë Wood
Assistant Professor, Computer Science

The Computer Science Department opened its Interactive Entertainment and Game Design Lab for use by classes last fall and has been enjoying the new facilities all year.

The new lab includes 19 machines equipped with NVIDIA GeForce GTX 470 graphics cards and Alienware OptX AW2310 monitors. The lab machines are dual boot (Linux and Windows) and include the technical software and libraries necessary to develop interactive entertainment applications (real-time 3D computer graphics using OpenGL and 2D games using Flash Actionscript). They also include the artistic software tools necessary for students to develop the assets to use in these games (Adobe Photoshop and Autodesk Maya).

Computers are clustered on rounded tables to encourage and facilitate team interactions, as almost all students work in teams in these courses. Students have been using the lab for courses ranging from CSC 123 and CSC 171 (Introduction to Interactive Entertainment), CSC 471 (Introduction to Computer Graphics), CSC 476 (Real-time 3D Computer Graphics Software Systems), CSC 473 (Advanced Rendering Techniques),



CSC 458 (Applied Parallel Computing) and CSC 572 (Computer Graphics – graduate level). Presently, students using NVIDIA's Compute Unified Device Architecture (CUDA) programming architecture in CSC 458 are teamed with students in CSC 473 to parallelize their ray tracer applications using the technology in the new lab.

All games in development by students in the second quarter of CSC 476 are using advanced shaders to enhance their appearance. For examples of the current state of the games, see http://users.csc.calpoly.edu/~zwood/teaching/csc476/final_proj_11.html.

This lab is being used as part of NVIDIA's CUDA Teaching Center program. Cal Poly is one of a select group of universities partially sponsored by NVIDIA to teach massively parallel computing as part of the curriculum. The graphics cards installed in the computer systems in the Interactive Entertainment Lab each have 448 compute cores that can be used for general purpose computation.

Students in the CSC 458 course this spring are getting hands-on experience utilizing this hardware to solve computational problems such as matrix multiplication and ray tracing, and will pick a final project focusing on an application of their choice. The emphasis on these projects is performance, and NVIDIA is awarding high-end, CUDA capable graphics cards to students with the fastest projects.

As the Computer Science Department also purchased NVIDIA 3D vision kits for the lab, one Cal Poly student, Bob Somers, enabled support for 3D stereo with the NVIDIA graphics cards using OpenGL (currently not supported in the NVIDIA 3D vision kits) for a class project. For more information on this project, see <http://users.csc.calpoly.edu/~zwood/teaching/csc572/final11/rsomers/>.

Meet Alan Pence

Operating systems analyst's passion is computer science

Hello, my name is Alan Pence, and I am the new addition to the Computer Science Department's support staff as an operating



Alan Pence

systems analyst. I think of myself as someone who has a wide range of interests and I confess that computer science is one of my passions.

My prior employment was with Texas Instruments at a site in Santa Barbara, and I started working at that

location because of the type of development work being done there. In my computer science classes I found I enjoyed the details of low-level hardware and software interactions. I liked the historic context of processor chip designs and the framework (and theory) of higher level language design. I had no experience with digital signal processors (at that point), but here was a place that produced tooling (and an odd little OS) for a variety of DSP chips. All of this effort was targeted toward systems developers, specifically for embedded systems. I was hooked.

So many of the concepts that we had touched on in the classroom were placed into new perspective. We had prototype boards for audio and video development kits where we were testing compilers, loaders, debuggers, instrumentation, and data exchange (for function, performance and for power consumption) in conjunction with the software that was developed in-house. The vague constraints of software development in my classes was now made very real.

To make things more interesting, the developed tooling needed to support proprietary binary code (licensed algorithms provided by other vendors) under an additional layer of abstraction.

I can see the same sort of work going on here within the department, and I'm very excited to be around all of the activity here. I enjoy talking shop, so please feel free to stop by the lab and say "Howdy."



Student Elliott Kipper shares the latest iPhone apps with Cal Poly President Jeffrey Armstrong.

New & Invaluable Tools

Mac lab and iOS course keep CSC students current

By John Bellardo
Assistant Professor, Computer Science

The Computer Science Department opened a Mac lab during spring quarter that provides 24/7 access to the latest, top-of-the-line iMacs. Its opening and a new course – iOS Development – exemplify the department's commitment to teaching the latest technology to our students.

The iOS Development course provides embedded development experience to Computer Science and Software Engineering majors, reinforcing the good design, algorithmic and implementation practices they learned in previous courses. The platform is very unforgiving of slow, bloated programs. The knowledge also helps the department attract the next generation of

computer scientists using technology they are already using.

The iOS course furthers the department's emphasis on mobile development as an important skill set for our graduates. Coursework isn't the only opportunity for exploring this material. The success of this and other mobile development courses led to the creation of a student-run club focused on these mobile platforms.

In addition to providing necessary facilities for the iOS course, the lab provides our students the opportunity to explore different technologies. We strive to produce more well-rounded engineers capable of critically selecting the most appropriate technological solution rather than settling for what they know best.

First-Year Fun

Department serves up 'flavorful' concepts to CS-hungry freshmen

**Compiled by CSC Professors
Clark, Clements, Haungs and Janzen**

Last fall quarter, four computer science professors offered an innovative approach to providing first-year students with an introduction to the field of computing.

Professors David Janzen, Michael Haungs, Christopher Clark and John Clements each taught their own "flavor" of a new course titled Introduction to Computing. The four flavors included Mobile Computing, Games, Robotics and Music. An objective of these courses was to allow team-based design experiences within specific applications of computing early on in the curriculum.

Professor Clark's Introduction to Computing and Robotics course introduced the students to the world of underwater robot systems as well as their applications in marine biology and archeology. Students

were asked to program an autonomous underwater vehicle (AUV), by developing an application that uses the AUV sensors and actuators to travel to any series of waypoints in the ocean.

While some programs literally sent the AUV navigating "off into the sunset," other programs were incredibly successful (even providing an online heuristic-based solution to the Traveling Salesman Problem).

In Professor Clements' course on music, students explored the space of synthesized and natural sounds using DrRacket. Early projects introduced sampling and looping. Later projects covered tone generation, sound synthesis and filtering.

Student tastes ran the gamut from classical to dubstep, and their final projects included remixes of popular music, chiptune pieces, synthesis of an entire orchestra and avant-garde noise/glitch. These final projects were aired on Cal Poly's student-run radio station, KCPR.

Professor Haungs' course on game design tackled the question, "How do you program fun?" In lecture, students analyzed games and game design in terms of rules, player interaction and cultural impact. In lab, they worked in teams to build a fully functioning web-based game using an interactive, play-

driven development process. This class challenged students to combine art, music and story into an engaging piece of interactive software. The game topics ranged from Justin Bieber and zombies to penguins trying to survive global warming.

Professor Janzen's course on mobile development resulted in 32 apps for Android smart phones. Students each completed two apps in small teams, one using Google's App Inventor for the Android online development environment, and the second using the full professional development environment of Java, Android and Eclipse.

Students demonstrated their creativity with apps ranging from a Magic 8 ball to a sky diving game to Remote Clizr that allows control of your PC with your Android phone.

The first-year experience was quite apparent with several apps for tracking meal plan usage and following Mustang Athletics.

A novel aspect of these course offerings is that incoming students actually have a selection of which flavor they want to be enrolled within. This gives the students a chance to learn computing in the context of a real-world application to which they associate value. To the best of our knowledge, no other university program in the country offers such a choice.



Collaborating on a project (from left) Taylor Arnicar, Justin Rhoades, Professor John Clements (standing), Robert Crosby, Henrietta Wong and Professor Michael Haungs.



That's Teamwork

CSC programmers place in ACM's 2010 SoCal regional competition

By John Bellardo
Assistant Professor, Computer Science

Cal Poly CSC, CPE and SE students placed 9th, 11th, and 18th in the ACM's 2010 Southern California Regional Programming Contest. In three teams of three members each, they competed against other Southern California colleges, including Harvey Mudd College, California Institute of Technology, UCLA and UCSD.

Cal Poly annually sends multiple teams to the competition, which serves as a qualifying round to participate in the ACM-ICPC World Finals. Teams are composed of

Cal Poly's programming teams included (from left) John DiSanti, Matt Tytel, Ben Sweedler (kneeling), Trevor Jones, Austin Hendrix, Jennifer Hughes, Mark Gius, Ben Cooley and Richie Steigerwald.

volunteers who spend many, many hours during fall quarter preparing to compete. The students solved practice problems, discussed solutions and strategy, and participated in a five-hour mock contest.

The group had taken a CSC-sponsored, weekend trip to Riverside to participate in the daylong competition. During the event, each team used one computer to solve as many problems as possible in five hours.



Diane Nott (left) and Christy Zolla

STAFF NEWS

Goodbye, Diane, Hello, Christy!

Diane Nott retired from the CSC Department after 20 years of service. At her retirement party in the Cal Poly Arboretum, she was given a garden bench by faculty members and staff for her new career as a grandma and gardener.

Diane is now enjoying her retirement, staying active in the community, traveling and enjoying time with her family.

Newcomer Christy Zolla recently worked at CafeFX, a post-production visual effects studio on the Central Coast, whose film

credits include "Pan's Labyrinth" and Tim Burton's "Alice in Wonderland." She worked with a production team that managed artists, tracked and managed effects shots, and coordinated education and internship programs, and the training and orientation of incoming artists.

Christy has also worked at Chapman University and UC Santa Barbara in positions involving graduate programs, academic advising and department administration.

Welcome, Christy!

By Zoë Wood
Assistant Professor, Computer Science

In late January, Cal Poly participated in its second Global Game Jam (GGJ), an annual international event where participants design and develop games from scratch in 48 hours.

In order to level the playing field, students are not told what restrictions or themes may be applied to each year's event before it begins. Although these restrictions keep others from working on the game before the 48 hours, the Global Game Jam is specifically a collaborative effort (though some judging may happen at a local level.)

Cal Poly joined 168 other GGJ locations in an effort that leads to the development of nearly 1,500 video games over the course of the weekend. The event kicked off with a keynote video by Keita Takahashi, the

Global Game Jam

Students demonstrate their creative computing chops under deadline pressure

creator of the world-famous Katamari series console games.

This year's theme, "extinction," was given to the group after the keynote, releasing the students to come up with game

ideas, form teams and begin their work. Most students chose to leave for periods in order to rest, but otherwise remained in the lab and surrounding rooms for most of the weekend, working with their teammates in a mad rush to finish their games before the deadline.

Embracing Cal Poly's Learn by Doing motto, the participants gained invaluable experiences out of the classroom about game development, teamwork and just having fun with their peers. Exhausted but triumphant, each student left with their own story to tell, a passion for their games and eager anticipation for what's in store next year.

Cal Poly's 2011 GGJ Team collaborates on deadline. From left: Nat Welch, Katherine Blizzard, Taylor Arnicar and James Pearson





California Polytechnic State University
San Luis Obispo, CA 93407-0354



Computer Science ~
Software Engineering

Class of 2010 Gift

Check It Out!

Under the leadership of senior Alyssa Daw, the Class of 2010 organized a gift campaign for the Computer Science Department and collected more than \$4,000 in cash and pledges from graduating seniors in CSC and SE. The class hopes that it marks the beginning of an annual tradition in which seniors give back to the department as they move forward in their careers.

The funding was allocated to the Interactive Entertainment and Games Design Lab (see article on page 9), which was finished last summer, thanks to generous donations from Geoff Tate, Bert Forbes, alumni and the great class of 2010!

