

CARS AND MUSIC GO TOGETHER

If Andrew J. Goldberg had a car, you can bet it would run great and have a fantastic stereo. Goldberg, a senior in MechE, loves cars and music, and that's why he's at Carnegie Mellon.

Music has always been a part of Andrew J. Goldberg's life. His parents brought him to his first concert, Billy Joel, before he was born, and they tease him about how he loved to dance even then. When he was young, he and his parents would go see acts like the Beach Boys and Yes, but he also went to the ballet and the Boston Pops because his parents felt it was important he be exposed to a variety of music. His grandmother was a "classically trained pianist with perfect pitch." Goldberg himself has been playing the guitar since he was eight. "I am passionate about music," he says.

In high school, he seriously considered studying music in college, "but I would have missed math and physics." Further, he didn't want to be a performer, although he's pretty good on his guitar – he has six of them! He was torn. Sound engineering fascinated him but so did cars. "I read *Road & Track* religiously," he says. When he discovered he could pursue both mechanical engineering and music technology at Carnegie Mellon, he signed on the dotted line. "Math and music make both sides of my brain happy," says Goldberg.

Integrating technology and music is important at Carnegie Mellon, a university that offers world-class programs in both areas. Goldberg, along with nearly 10 percent of CIT's students, participates in music studies or performance programs.

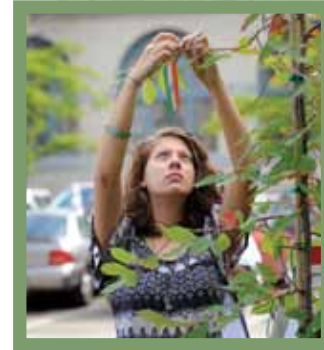
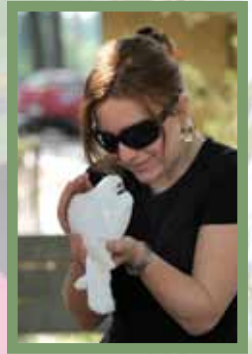
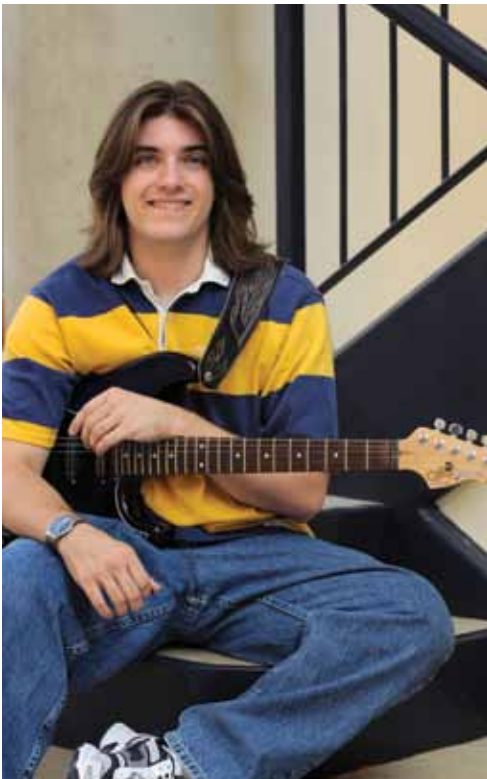
By minoring in music technology, Goldberg

is learning how to run a recording session. He is doing everything from setting up the mics and wiring equipment to recording, editing and mastering music.

This past summer, his multifaceted education and a little networking helped him land an internship at Seven45 Studios LLC, a division of First Act, the musical instrument manufacturer. Seven45 Studios is a premier game developer and publisher that's based in Boston, Goldberg's home turf. There, as an audio intern, he worked on a music video game that's due for release. He enjoyed the experience and learned a lot about game development.

These days back in Oakland, Goldberg is concentrating on senior projects. He's been studying internal combustion engines, and he's on a team that is tearing one apart to find out what's wrong with it. He finds these labs interesting and actually fun. On the musical front, for his grand finale he's going to record, edit and master an album for a local band. He's looking forward to that as well.

Goldberg is lucky. He found a school where he can dive into his passions and fully explore them. Whether you call him a mechanical engineer or a sound engineer, he is nonetheless a Carnegie Mellon engineer.



Members of Sustainable Earth,

a student-run environmental club at Carnegie Mellon, dedicated a tree to honor the G-20 Summit that was held in Pittsburgh, September 24-25, 2009. The club wanted to convey that students from different nations and cultures are unified in the belief that the economy and ecology can grow strong together.



Orientation Extravaganza



Members of Female Engineering Network sign in to attend dinner.



The First Year

Starting college is exciting, but there are challenges, too. When new students arrive at Carnegie Mellon, they have questions ranging from which classes to take to where is the best place to grab a burger.

Often it's the first time they've lived away from home. To help students transition from high school to college, CIT has implemented the Deepak and Sunita Gupta First Year Experience Program (FYE).

The program's origins go back to a humble, but comprehensive, effort that was launched in 2006 for the purpose of engaging first-year students into the campus community. Working daily with students, CIT's undergraduate administrators Kurt Larsen, assistant dean, and Pamela Golubski, associate director, became keenly aware of the problems young students face. CIT's curriculum, while rewarding, is challenging and first-year students as a whole know little about engineering majors and career options. On the social front, students have to make new friends.

To help students acclimate, CIT took a unique approach and began working with first-year students upon acceptance of admission. The goal was to maintain an advising presence throughout the students' entire first year. During

the summer, fledgling students had access to online academic advising and registration, and could virtually meet fellow students and peer advisers via technologies like Facebook, IM, Blackboard and Twitter. The increased emphasis on advisement along with well-orchestrated events proved beneficial for students.

In 2009 Deepak Gupta (B.S. ChemE, TPR, '89) and his wife Sunita endowed the First Year Program. "Through the Guptas' generosity, the College is able to provide first-year students more opportunities that foster academic, personal and professional growth. The College has created a series of activities that help students succeed all around," says Larsen, like the Success Series – a collection of helpful workshops on topics such as resumes, interviewing and networking.

He cites the First Year Dinner Club and the Meet, Mix, and Mingle program as significant exploration events. "These are great ways for students to learn about potential careers." During these activities students talk with faculty, upperclass students, peers, and often alumni, about the majors, career options, research, student organizations, etc.

Golubski notes that most of the women in the Class of 2013, approximately 64 students, participate in the Female Engineering Network initiative. This past fall, the students had dinner with alumnae, who represented various engineering fields, and they had lively discussions about the profession. "By meeting with working female engineers, students get a different perspective on engineering. They're exposed to things that may not be discussed in class," says Golubski.

Helping students navigate career options and develop social skills is an important part of the FYE Program as are service learning projects. In campaigns like Toys for Tots or Cans Across the Cut, which gathers goods for a local

DEEPAK AND SUNITA GUPTA CHAMPIONS FOR STUDENT SUCCESS

During a trip to the U.S., Deepak Gupta and his wife, Sunita, stopped by Carnegie Mellon. Deepak is chairman of the Romav Group, a privately held, Singapore-based business focused on shipping and property. We had an opportunity to talk to the couple about their motivations for endowing CIT's First Year Experience Program.



Deepak Gupta (B.S. ChemE, TPR,'89) vividly recalls his early days at Carnegie Mellon. As an international student from India, his flight to Pittsburgh marked his first trip to the U.S. He was somewhat intimidated, "It was a new country, a new university, a new life, a new everything." His parents, who accompanied him, stayed long enough to buy their son winter clothes and get him settled in, and then they left.

Deepak was alone and faced with a choice. "When you are thrown into the deep end of the swimming pool, you learn to swim or you sink. I swam." But it wasn't easy. He, like most first-year students, had to manage multiple challenges on both an academic and personal level. His courses were rigorous, and outside of class, he had to develop new friendships. He was immersed in a different culture, complete with new foods and customs. Even Pittsburgh's weather was foreign to him.

Looking back on his first year at CIT, he says, "Dealing with the transition from high school to college is difficult. You have a lot more freedom, and some kids don't know how to handle that." New students must take in large amounts of information in a short period of time. "You have to make quick decisions on everything, whether it's which courses to take or which clubs to join. So much happens that first semester, and a lot of stuff whizzes by you because you don't have time to handle it."

"When I saw this program, The First Year Experience, I saw a chance to correct things I thought were flaws in my freshman experience. One of which was not having the time to take advantage of everything that was offered to me." Deepak and Sunita advocate that young people need time and access to activities that will help them make informed decisions about scholastic and social issues.

An area of particular concern to the couple is the process by which students select their majors. "I think a lot of kids don't know what they want to do when they are in high school. When they land at college, they have to decide what they want to study for the next four years. It's very easy to make the wrong decision," he says. "It is important that students talk to people – faculty, peers, people from industry – and learn about different majors." This is an essential component of the First Year Experience Program and one that "really excites" them.

"Students nowadays develop ideas very soon about what they want to be and that is unfortunate because they don't explore enough. Keep everything on the table until you are absolutely sure about what you want to do," he says. "You have to be open minded. Don't close the door to anything," adds Sunita.

In this vein, Deepak continues, "If I were to go back to school, I would work hard at building relationships. Students need to network." The Guptas believe that it is easy for undergraduates to stay in their comfort zone and not mingle with those outside of engineering. "I would tell anybody today, go out and talk to people. You never know who you will meet. You could meet someone who becomes your best friend or someone who can tell you about a job opportunity."

When Deepak was at Carnegie Mellon, he double majored in chemical engineering and industrial management, which was uncommon in the 1980s. But even back then, Carnegie Mellon was a university that afforded opportunities for personal growth. Deepak's workload was intense, "but I made a lot of effort to get out of my comfort zone. I was the president of the business club. This required me to interact with Pittsburgh-based business people, campus administration, students from other majors, and other college chapters in the USA. I was on a faculty-supervised undergraduate student research project, I met faculty members, staff and students from other CIT departments and learned the reality of teamwork. On a more general note, I engaged in sports, campus events and many road trips, all of which enabled me to meet persons of different backgrounds and experiences, who had various post-college dreams. I stayed active. You got to do things or you will go crazy if all you do is sit with your coursework."

"You have got to explore. You've got to find your niche," concludes Deepak. "And whatever you do, you have got to push the envelope. That is when you learn what you are capable of."

For the third year in a row, CIT students collected the most goods for Cans Across the Cut, a university wide food drive.

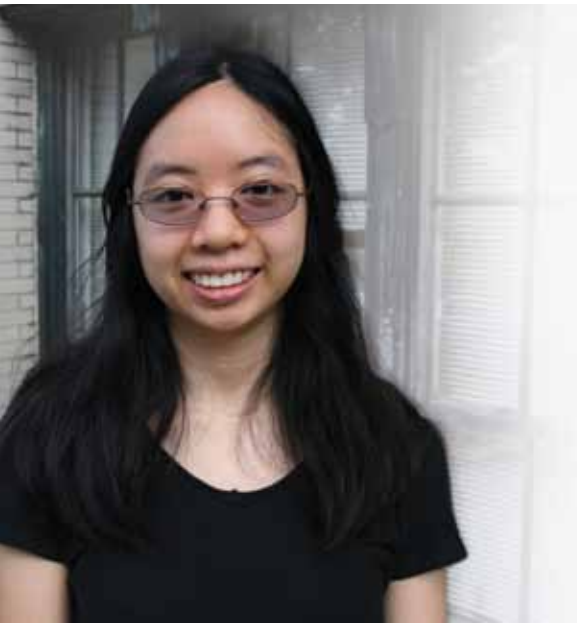


food bank, the students give back to the community. The students' efforts have earned CIT placement on the President's Higher Education Community Service Honor Roll.

The students, of course, have favorite events, like the Orientation Extravaganza, which marks the first time the entire incoming class meets. At the start of the term, they get together for a night of bowling and video games or an afternoon cookout with live music. Likewise, after the students declare their major, there is the Major Blast and students celebrate the end of their first year.

"We have created a support network that addresses students' concerns with academics, social and personal issues," says Golubski. The College believes that a network of faculty, staff and peers makes students more satisfied with their program and this plays an important role in student retention.

NEW FELLOWSHIP UNDERScores ENVIRONMENTAL COMMITMENT



Stacey Louie has been named the first recipient of the Jared and Maureen Cohon Graduate Fellowship in Civil and Environmental Engineering.

Confident in Carnegie Mellon's ability to generate scientific breakthroughs in environmental issues, the President and Mrs. Cohon established the fellowship for graduate students in the College of Engineering. A preference will be given to those studying civil and environmental engineering (CEE) and specializing in environmental engineering under the aegis of the Steinbrenner Institute for Environmental Education and Research.

"This fellowship was important to me because it shows the commitment Carnegie Mellon has toward environmental research, as well as its support toward graduate students," says Louie, a first-year CEE graduate student. "I've been interested in environmental work since middle school, so seeing that Carnegie Mellon is likewise committed to the environmental field is very special to me." Louie's research will focus on the environmental implications of nanotechnology. "Receiving the fellowship encourages me to work harder on my research and to rise to the faith placed in my abilities," she says.

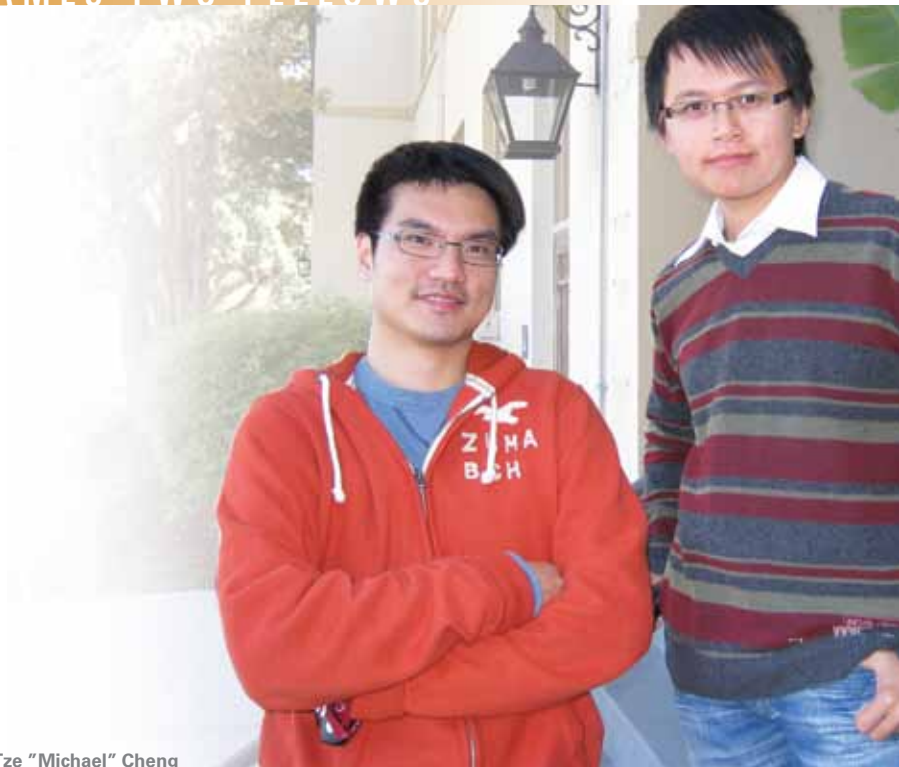
Awards

NOKIA NAMES TWO FELLOWS

Nokia Research Center in Palo Alto has named Feng-tso "Lucas" Sun and Heng-Tze "Michael" Cheng as Nokia Fellows. Sun and Cheng are Ph.D. students in Electrical and Computer Engineering at Carnegie Mellon University's Silicon Valley campus. In association with CyLab Mobility Research Center, the students will focus on context-aware mobile computing.

Sun, whose research area is in the field of mobile health, says, "I am really excited about this unique connection with Nokia Research Center. With Nokia's leading technology and very human culture, my dream of connecting people to empower the mobile services for healthcare and wellness won't be too far."

Cheng, whose research explores multiple sensors to generate or capture context on mobile phones, agrees, "Because of my strong research interest in context-aware mobile computing, I really appreciate the opportunity to collaborate with Nokia Research Center. I believe the interaction with Nokia can equip us with the leading mobile technology and industrial experience, which are essential for us to innovate and contribute to the era of mobility."



Feng-tso "Lucas" Sun (left) and Heng-Tze "Michael" Cheng