



NOTES

FROM DEAN CLARK

Jan. 11, 2016

Dear members of the Hajim School community:

Thanks to 14 students from the Department of Computer Science, the Hour of Code was especially meaningful for 60 seventh-grade students at John Walton Spencer School 16 in the Rochester City School District. Our Hajim School students, led by **Mikayla Konst '17**, visited the school throughout Computer Science Education Week last month. “The first two days the UR students introduced computer science and talked about why they were studying CS and what coding is in general,” said School 16 math teacher **Molly Gildea**, whose husband Dan is an associate professor in the department. “They also answered general questions about college. They were incredibly well received and my students engaged in a great conversation with them.” During the next two days they helped the pupils sign on to the Hour of Code website and get past points of frustration or points where the students were stuck. **Som Liengtiraphan, Steve Gattuso, Lia Klein, Gianna Macri, Demeara Torres, Anya Khalid, Hassler Thurston, Chris Perkins, David Fink, Viet Duy Nguyen, Edward Newton, Maria Janczak, and Vivian Li** joined Konst in mentoring the School 16 pupils. The outreach effort dovetails perfectly with the computer science department’s involvement in the **BRAID (Building, Recruiting and Inclusion for Diversity) project**, an initiative led by the Anita Borg Institute and Harvey Mudd College to increase the percentage of women and students of color majoring in computer science. **“My students had a wonderful time and learned a lot and I think it really opened up a new world to them.”** Molly Gildea said. Well done to all involved!

NullSpace VR -- a team of current and former Hajim School students -- is **preparing to bring to market their virtual reality haptic vest** that slips right over the users’ clothes, plus gloves and peripherals. The vest is designed to be used with the new VR headsets coming on the market. Applications could include simulating fires, crime scenes, combat scenarios – even Outer Space – in order to train firefighters, police officers, military personnel and astronauts with a high degree of realism. It could provide immersion therapy for victims of post-traumatic stress disorder. But for now, the team is **concentrating on the virtual reality gaming industry**, which is enjoying a resurgence as other groundbreaking VR technology – such as the new Oculus Rift virtual reality headset – comes to market at the start of the year. Read more [here](#).

Congratulations to:

Nick Vamivakas, Assistant Professor of Quantum Optics and Quantum Physics, who has **received a prestigious Faculty Early Career Development (CAREER) award** from the National Science Foundation for "Quantum Photonics with Quantum Dots in van der Waals Heterostructures." This is a well deserved award for one of our most promising young researchers. Read more [here](#).

Michael Scott, Professor of Computer Science. **The fourth edition of his book, [Programming Language Pragmatics](#), has just been published.** Considered the definitive text in the field, it includes updated coverage of the latest developments in programming language design, including C & C++14, Java 8, C# 5, Scala, Go, Swift, Python 3, and HTML 5; updated treatment of functional programming, with extensive

coverage of OCaml; new chapters devoted to type systems and composite types; unified and updated treatment of polymorphism in all its forms; and new examples featuring the ARM and x86 64-bit architectures.

Sarah Smith, a PhD student in Electrical and Computer Engineering conducting research in musical acoustics and signal processing, who recently was named the **recipient of the Acoustical Society of America's Best Student Paper Award in Musical Acoustics—First Prize** for her paper “Impact of acoustic resonances on overtone correlations across a large musical instrument database” which she presented at the Fall ASA meeting held in Jacksonville, Fla.

Eby Friedman, Distinguished Professor of Electrical and Computer Engineering, and three current or former Hajim School students who were in Santiago, Chile, during winter break to **participate in the 2015 Pan American Maccabi Games**. A member of the masters swimming team, **Eby won gold medals in the men's 55-59 400 and 800 meter freestyle events** and a silver medal in the men's 200 meter individual medley swimming backstroke. Also participating were **Shira Katz '18** Mechanical Engineering who helped the women's volleyball team to a silver medal, and **Rebekah Abrams '19** Biomedical Engineering and **Erica Gelb '09 (MS '10)** Electrical and Computer Engineering who helped the women's field hockey team to a bronze medal, Erica as both a player and assistant coach.

Xi-Cheng Zhang, Director of The Institute of Optics, was in Moscow last month as **one of three signatories** to a Memorandum of Understanding establishing an **International Consortium of THz Photonics and Optoelectronics** to strengthen scientific, technological and educational cooperation in the field of terahertz radiation. Seventy-one partners from 15 countries were present.

The Center for Integrated Research Computing is again offering its **Winter Boot Camp** to help students, postdocs, research staff, and faculty **learn new programming languages and sharpen their computing and data analytics skills**. The classes are designed for beginners and will cover basic topics to give enough direction to move on to self-learning tutorials or other more advanced coursework. Modules will be offered in Linux, Visualization, C Programming Language, Bash Shell, Python, MATLAB, R, MySQL, Stata and SAS; participants can choose one or more modules. Classes, taught in the VISTA Collaboratory, **start Jan. 26** and continue through March 3. Space is limited, so register early [here](#).

I wish all of you a great start to the spring semester. As always, keep me updated.

Sincerely,

Robert L. Clark
Professor and Dean



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