# SAAST Alumni Newsletter

Fall 2013 / Winter 2014

#### Summer Academy IN APPLIED SCIENCE & TECHNOLOGY



#### From the Program Assistant Director, Paige Harker

Dear Alum,

SAAST celebrated its ninth year as we welcomed 192 domestic and international students in July, 2013 - another record number!

SAAST experienced multiple changes this past year. We outgrew The Quad so the students resided in the Rodin College House, and the graduation ceremony was moved to the Annenberg Center to accommodate the student increase.

Consistent with our mission to provide high school students with the opportunity to explore engineering from a set of academically rigorous pre-college programs, we added a sixth course to the course offerings - Engineering Complex Networks

#### http://www.seas.upenn.edu/saast/courses/networks.htm.

When you stop and think about it, it is not surprising to learn that networks are ubiquitous in our modern society, playing an increasingly larger role in every day life - in social networks, the Internet and the electric grid.

Network Science and Engineering is a new discipline at Penn Engineering that investigates the structure of large complex networks and their behavior and properties. The students design technologies that control and manipulate their behaviors to bring about greater benefits to society. Check it out at: http://www.nets.upenn.edu/

students."

"SAAST was an incredibly rewarding experience. It is a pleasure to work with such gifted and hard-working

 Victor Preciado, Instructor, Engineering Complex Networks The Class of 2013 followed the path of previous classes by making their presence known in the halls and labs of Penn Engineering buildings late into the evenings, as well as at their industrial/professional site visits to: Google, Facebook, Curious Pictures, Blue Sky, Dupont and the Staples Distribution Center. It always warms my heart to see bonds form among the students by the time graduation arrives and observe such a strong sense of accomplishment in the students' demeanor at graduation.

Our heartfelt congratulations to the Class of 2013!

All the best! Paige Harker

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PS We love hearing from our SAAST alumni, so please continue to send us updates on what is happening in your corner of the world! Go to http://www.seas.upenn.edu/saast/alumni/form.php to submit.

#### SAAST2013 Biotechnology Lab Team



L-R: Colin Millar, Shira Redlich, Brendan Stoeckl, Rebecca Wentzel, Mithil Chokshi, Dr. Robert Bucki

#### **SAAST Scholarship Fund**



The SAAST Scholarship Fund makes it possible for us to provide need-based financial aid to qualified students whose families cannot afford to pay the full program fee. We are so very grateful to all of the families who share our commitment to making SAAST available to talented students whose families have limited resources.

To ensure that SAAST candidates in need of financial support are able to attend the program, please contribute to our SAAST Scholarship Fund.

Donations can be made online at http://www.seas.upenn.edu/gifts or via the enclosed form and envelope. Thank you!

## **SAAST Alumni News**

#### Summer Academy IN **APPLIED SCIENCE & TECHNOLOGY**

Nikita Agarwal (CGRA'13) - Junior at Livingston High School, where she recently started a South Asian Culture Club. Member of the Varsity Girls Tennis team.

Chee Eun Ahn (NANO'13) - Senior at the American Embassy School in New Delhi, India. Member of the Coding Club and the IB Computer Science Year 1 class. Other activities include composing piano pieces, math tutoring, teaching children English and participating on her school's Varsity Academic Games team.

Kyle Al-Shafei (ROBO'13) - Received the Excellence in Computer Studies award.

Dillon Azzam (COMP'13) - Junior at the Dalton School. Co-captain of school's Robotics team, Science Olympiad Team and Computer Science Team. Dillon is also applying his knowledge from SAAST, on an independent project, to program a Raspberry Pi.

Sarah Curtis (COMP'13) - Junior involved in her high school's marching band and varsity softball team. Recipient of the top engineering student award in her graduating class, and joined the school's Robotics.

Chris Duncan (ENC'13) - Working as a web designer.

Bari Gordan (COMP'12) - Graduated valedictorian this past Spring and is currently taking a gap year in Israel. Attending Penn Engineering next Fall.

Jia Gu (BIOT'12) - Vacationed across the US (Yellowstone, San Francisco, New York).

Joshua Hellerstein (ROBO'12) - Junior at Suncoast High School enrolled in the MSE/IB program. Building an electromyographic exoskeleton arm, modulated by an artificial neural network to help rehabilitate stroke victims. Won 1st place for developing an Android App called "The Wikipedia Game" and presented the App at the annual Mobile Technology Consortium. Started an entrepreneur's club at his school.

Sarah James (BIOT'12) - Studying Chemical Engineering at the University of Texas at Austin.

Ji Young Kim (ROBO'11) - Sophomore at Cornell University in Environmental Engineering.



Pak Yiu Kwan (NANO'13) - Senior at KIPP King Collegiate.

Ben Liang (BIOT'13) - Junior at Lynbrook High School. Starter on the Varsity Water Polo team. Member of the Future Business Leaders of America.

Nicolas Lozano - Landinez (ROBO'13) - Working on expanding his company, Grade A Tutoring, to include SAT preparation.

Martina Lugo (NANO'11) - Sophomore at the University of Michigan in Ann Arbor, majoring in Computer Science Engineering. This past summer she studied at Shanghai Jiao Tong University in China and travelled around Asia.

Caroline Mak (NANO'13) - HS Senior, serving as co-president for the Underwater Robotics Team and Computer Science Club. Founded the 1000 Cranes community service origami club, and active in school's literary magazine.

Andrew McGrath (ROBO'11) - Sophomore in Mechanical Engineering and Applied Mechanics at Penn. Taking mechatronics, the upper level robotics course. This past summer, worked as RTA for SAAST ROBO and really enjoyed the experience!

Najib Muqeem (NANO'13) - Senior at Dhahran High School in Al-Khobar, Saudi Arabia.

Zane Murphy (COMP'13) - Named as a National Merit Scholar semifinalist. In his spare time, he serves as president of his school's Math Club and Math Honors Society, and also heads a service organization. Applied to Penn Engineering for early decision.

Woojin Park (NANO'12) - Attending Harvard University, studying Earth and Planetary Sciences, to become a field geologist/mineralogist.

Rebecca Peet (CGRA'13) - HS Senior. Membr of Science Olympiad Team. President for Student Council and the French Club. In her free time, watches documentaries that cultivate interest in women's issues.

Natalie Pekker (CGRA'13) - HS junior. Creating a club called LETS - Let's Erase the Stigma. The club will be dedicated to de-stigmatizing mental illnesses such as depression and eating disorders.



Dillon Azzam '13

Joshua Hellerstein '12

Martina Lugo '11

Andrew McGrath '11

Najib Mugeem '13



NataliePekker '13

Isabela Rovira '13

Sang ho Lee '13

Elaine Ho '13

**Daniela Marques '13** 

**Rhea Prabhu (COMP'12)** - Selected to her high school's EXP Research Science Program. Spent 10 weeks at The Children's Hospital of Philadelphia's Mitochondrial Disease Research Laboratory this summer. Plans to apply to Penn.

**Maria Roldan (CGRA'11)** - Freshman at MIT and considering majoring in Civil Engineering.

**Isabela Rovira (CGRA'13)** - HS Senior. Working on her Senior Thesis project - teaching elementary school children the basic concept of the derivative in calculus through animation. Her free time is spent drawing and designing for 3D modeling, and learning as much as possible about the field.

Sahir Sagar (ROBO'12) - Visited 4 schools in Ndola, Zambia to introduce underprivileged children to the field of Robotics. Goal is to inspire young minds and expose them to a technology they may never have seen. He has written a blog about his robotics venture in Africa: http://sahirsagarrobotics.tumblr.com/

**Roy Shin (COMP'12)** - Studying Electrical and Computer Engineering at Carnegie Mellon University.

Alan Soetikno (NANO'12) - Studying Biomedical Engineering at Washington University in St. Louis.

**Johanan Sowah (NANO'12)** - First-year student at Columbia University, and a prospective Mechanical Engineering major.

Kevin Su (NANO'12) - Attending the Wharton School at Penn, Undecided. Member of the Varsity Men's Swim team.

Melisa Tokmak (COMP'12) - Freshman at Stanford University.

**Noel Trivedi (BIOT'12)** - Studying Aerospace Engineering with a minor in Computer Science at the University of Southern California. Member of USC's Rocket Propulsion Lab, which is currently working to be the first student-led organization to send an entirely student made rocket into space. Since SAAST, he has been featured in the OC Register as Huntington Beach HS's Top Academic Graduate, and earned the distinction of National AP Scholar. Captain of the 3rd place team in the Regional Ocean Sciences Bowl. 1st place team in the Regional Science Olympiad's Science Bowl Tournament.

Andrew Tsai (BIOT'11) - Majoring in Biomedical Engineering at Johns Hopkins University.

**Charlie Wu (NANO'11)** - Sophomore at Princeton University, pursuing a BSE in Operations Research and Financial Engineering.

**Jinming Yu (BIOT'13)** - Interned at Institute of Process Engineering at the Chinese Academy of Technology, after completing SAAST. Worked for a professor researching key techniques for bio-conversion of straw and fuel ethanol production.

**Libby Zorn (CGRA'11)** - Computer Science major at Brown University. Researcher in the Graphics Lab, and a teaching assistant.

Micaella Zubkov (BIOT'10) - Studying Computer Science at Cornell University.

**Sang ho (Eric) Lee (BIOT'13)** - Senior at Shipley HS and working at a Penn research lab. Captain of the Science Fair team and Robotics Club. Plays Varsity soccer.

Amelia Rolf (ROBO'13) - Honors Mentor Connections program participant - will be paired with a mentor at the University of Minnesota. Co-captain of the school's FIRST Robotics team.

Jane Roberts (CGRA'13) - Junior at the Baldwin School. Preparing for college applications and plans on returning to figure skating.

**Daniela Marques (NANO'13)** - Volunteered at Lar da Crianca in Sao Paulo, Brazil, an institution that provides free education and meals to underprivileged children. Global Scholars program participant and member of the Cancer Awareness Club. Arranging bake sales to donate money to a Florida nanotechnology research fund.

**Matthew Wolfman (ROBO'13)** - Junior at Gann Academy. President of the school's Junior Statesman of America chapter. FTC Robotics team member. Finished independently building his 1st computer.

**Elaine Ho (ROBO'13)** - Science Olympiad team member. Participating in the Circuit Lab event. Preparing college applications and plans to pursue an engineering career.

Jacob Gursky (ECN'13) - Taking an online ECN course through Coursera, co-wrote a play, and joined the cross country track team. Heads a youth writers' group, the League of Literaries (LOL).

Arun Drelich (ROBO'13) - Co-founder of the school's Robotics team. Will compete in MIT's Zero Robotics competition.



### "Whasssup?"

We want to know what's happened since you graduated from SAAST! Share with us the school you are attending, year, your major, awards received, projects in which you are involved (personal and academic), new jobs, and anything else you want to share!

Send us your updates by going to the SAAST website at http://www.seas.upenn.edu/saast/alumni/ Got photos? Email them to us at: saast@seas.upenn.edu Look forward to hearing from you!

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