

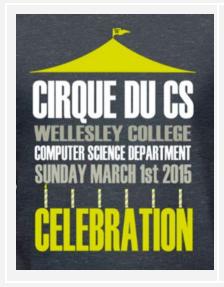
# Computer Science Winter 2016 Newsletter

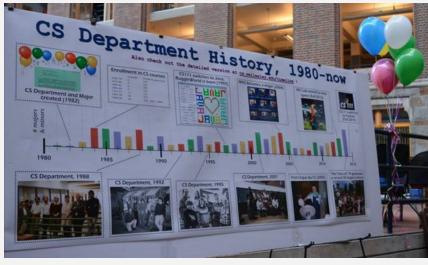
In this issue: Cirque and Anniversary review, CS department growth, activities and achievements from 2015

# **TOP STORIES**

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### Highlights from the Cirque du CS







The Cirque du CS 2015 in March was a resounding success! The Science Center was teeming with 150+ CS student participants, alumnae, faculty, and community members, as our students displayed a dazzling variety of projects and research.

We also celebrated our 32nd anniversary as a department, with several special presentations, including fun stories about the history of CS at Wellesley by Randy Shull, a talk show with host Takis Metaxas and special guests Kristin (Powers) Harkness '85, Monica Luke '93 and Kate (Golder) Crafford '02, and a peek into the future of CS at Wellesley by Orit Shaer. The keynote speaker was the first Chair of our department, Professor Eric Roberts from Stanford. The elusive Captain Abstraction also made an appearance!



Captain Abstraction

Check out this video of the Cirque, as well as pictures from our Facebook page. Also, visit the Language Processing. Timeline of Wellesley CS department history (created by Sunnia Ye '17 and Eni Mustafaraj), and watch video memories from Lyn Turbak, Takis Metaxas, Sohie Lee, Jean Herbst, and Eric Roberts(filmed by Lucy Shen '17)!

### **Continuing Rise in CS Enrollments**

The most significant trend in Wellesley Computer Science over the last few years (and now even more acutely so), is the increased demand for registration in CS courses. More students than ever are coming to Wellesley with the plan of majoring in Computer Science, in addition to students at all levels taking CS courses to broaden their technological background. We are very proud to be making a significant contribution to increasing the number of women computer scientists!

### **New Faculty and Staff**

Although it has been a challenge for the department to manage the increased enrollments and staff our courses, the College has been supportive in approving additions to the faculty. We welcomed several new members to the department this year, and we are currently conducting a search for two more positions for next year.

### Sravana Reddy



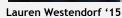
Our new Hess Fellow is Sravana Reddy. She has a B.S. from Brandeis University, and an M.S. and Ph.D. from The University of Chicago.

Sravana's focus is working at the intersection of human language and computation: machine learning systems to extract patterns from text and speech data, communicate through language, and shed light on linguistics, cognition, and society.

This fall, Sravana taught CS 111 Computer Programming and Problem Solving. In the spring, she will be incorporating her research into CS 349 Natural

### **HCI Research Staff**



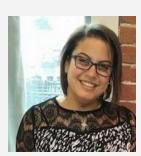




New staff members in the HCI Lab this year include Lauren Westendorf '15, Research Fellow, and Evan Segreto '15, Research Programmer.

#### **Christine Bassem**

Also joining the faculty this year as a Lecturer is Christine Bassem, who has a B.S. from Ain Shams University, an M.S. from German University in Cairo, and a Ph.D. from Boston University.



Christine is interested in resource management within brokered computing environments; specifically the allocation of resources (packing/routing), and its economical aspects.

This year, Christine is teaching CS 110 Computer Science and the Internet, CS 230 Data Structures, and CS 231 Fundamental Algorithms.

### Anna Loparev

Anna Loparev '10 is joining the faculty this spring to teach and to do research in the HCI Lab. Anna is currently finishing her Ph.D. at the University of Rochester.



Anna will be teaching CS 110 Computer Science and the Internet this spring.

# **FACULTY NEWS**

### Goodbyes

In June, we were sorry to say farewell to **Rhys Price-Jones** and **Darakhshan Mir**, who have been our friends and colleagues for the last two years.



Rhys Price-Jones

Rhys will be teaching at the College of Wooster, where he was named the Pocock Family Distinguished Visiting Professor. He and his wife Laurel are pleased to be settling into a new home in Oberlin, where they lived previously for many years.

Darakhshan and her spouse Deepak lyer were thrilled that they each were offered tenure-track faculty positions at Bucknell.



Darakhshan Mir

We very much enjoyed working with Rhys and Darakhshan during their time at Wellesley, and wish them the best of luck in their future endeavors!

### New Chair

**Brian Tjaden** is the new Chair of the CS Department!



Brian, in his first stint as Chair, is approaching the job with his usual sense of orderliness flavored with a wacky sense of humor.

### **Professional Activities**

We thank Ellen Hildreth for her leadership and service as Chair over the last several years. She has now passed on the baton, since she is on sabbatical leave this year. Ellen is conducting research on human visual processing at the Center for Brains, Minds, and Machines based at MIT, where she also serves as the Co-Coordinator for Education.

Randy Shull returned from leave, which he spent doing research in the area of algorithmic graph theory... more details

Takis Metaxas had a very unusual year. The *TwitterTrails* project, on which he has been working for the last 4 years with Eni Mustafaraj, Samantha Finn'12 and a small army of students, was completed and is now live. See it at twittertrails.com. In March, he gave a presentation about it at the CSCW'15 conference in Vancouver, Canada and in April a video talk at the Journalism/Interactive conference:

https://www.youtube.com/watch?v=HWhg0crwVZU
Feel free to watch it and like it on youtube:)
They also traveled to Oxford, UK, in June to present
TwitterTrails at the WebScience conference. That was
a lot of fun.

But, the major events for Takis and Stella Kakavouli last year were the graduations of their two daughters. Danae graduated from Brown, and Artemis from Wellesley High. They are both off to College, Danae at the Stanford CS grad school and Artemis at Smith College. Other than that, Takis did not do much else in the second half of the year in terms of conference attending, or even teaching, because he was preoccupied dealing with cancer treatments. He now feels so well that he will be teaching again in the coming Spring semester, while taking over the role of the Faculty Director at the Albright Institute.

Eni Mustafaraj participated in two workshops that were part of the 5th International Learning Analytics and Knowledge Conference at Marist College, NY (Mar 16-17). On May 19-21, she presented a poster at the NCWIT Summit on Women and IT, about the broad CS curriculum at Wellesley, titled *Taking Computer Science Outside the Box*. On Oct 1-2, Eni attended the 2nd Workshop of Learning with MOOCs at Columbia University (NYC) presenting the talk *Leveraging the Event-Centered Perspective on Student Behavior Data*. She also participated in two developmental workshop organized by the NSF Cyberlearning program. Finally, on Dec 1st, she was part of the inaugural Humanities panel at Wellesley College titled *How to read a map: From animal hides to handhelds*.

Brian Tjaden has two grants from NIH to support his research on developing algorithms for analyzing high-throughput genome sequencing data. He is always on the lookout for students interested in bioinformatics, biotechnology, and algorithms with biomedical applications.

Orit Shaer took the role of MAS co-director. She has three grants from NSF to support her research on novel human-computer interaction techniques for exploring and learning with large datasets. She co-instructed a collaborative iGEM team with the Tech Museum of Innovation and traveled with students to present work at ACM TEI (California), Augmented Human (Singapore), and ACM CHI (Korea). She also gave talks at Stanford, Tufts, and BU.

Scott Anderson doesn't have many teaching innovations to report, but he's looking forward to two major development projects for the summer. The first is an introductory web design course for CS majors, intended to be taken after CS 111, going deeper than CS 110 ever could. The second is a revision to CS 304, the web databases course, to use a Python-based framework, such as Django. His family is doing well. With both kids taking multiple dance classes, much of his income is going to a dance studio.

Susan Buck presented workshops and gave talks geared at encouraging women in tech via various community events including Jr.Tech's Girls STEM Statewide Summit, Boston 's City Awake Social Impact Festival, the Cambridge Science Festival, and Boston's Common Impact organization.

Jean Herbst served as a poster judge and was part of a panel titled *Lessons from Women's Colleges*, held in April at CCSCNE (Consortium for Computing Sciences in Colleges Northeastern Region), at Holy Cross in Worcester, MA. Jean is also enjoying an empty nest at home, since both of her sons are now in college!

Sohie Lee attended the Grace Hopper Celebration of Computing in Houston, Texas during October with the largest Wellesley representation yet! Darakhshan Mir was also there, and dozens of wonderful alumnae from industry and academia. Sohie also published an article in XRDS: Computer Science Faculty Careers -- Liberal Arts Myths and Realities.

Ben Wood discussed his research on tools for detecting software concurrency bugs in talks at Williams College in April and at the New England Programming Languages Symposium in June. On campus, Ben has been growing the systems curriculum, with a new version of CS 240 piloted in spring 2015 with Jean Herbst and a new course on compilers and runtime systems (CS 301) to run in spring 2016.

# **ACHIEVEMENTS**

The CS Department had much to be proud of this year. Here is a sample, including exhibits of student projects, and notable awards and accomplishments of our students, alumnae, and faculty.

### **Congratulations**

### Public Speaking Award



Sonali Sastry '15

Congratulations to Sonali Sastry '15 for being one of the two winners of the first annual Jacqueline Loewe Fowler '47 Prize in Public Speaking, awarded at the Ruhlman Conference in April!

### **Short Story Award**

Brenda Peynado '06 was recently featured in the Wellesley News for receiving the Chicago Tribune's Nelson Algren Short Story Award.

Although a CS major at Wellesley, Brenda is currently pursuing her Ph.D. in Creative Writing at the University of Cincinnati. Peynado is quoted when questioned about her seemingly diverse academic interests:

"Philosophy, computer science, and creative writing were all asking the same questions with different tools."



Brenda Peynado '06

### NSF Grant

Orit Shaer, along with co-principal investigators Takis Metaxas, Eni Mustafaraj, Brian Tjaden, and Lyn Turbak, received an NSF research infrastructure grant, awarded to support the creation of an interactive visualization facility for interdisciplinary research.



CS Students using new MultiTaction displays, purchased for the HCI Lab as part of an NSF grant

### Faculty Focus

Sohie Lee was the subject of the Faculty Focus section of the September 24, 2015 issue of the Wellesley News, where she was described by staff writer Diederique Van Der Knaap '18 as "Inspiring Advances in Computer Science".



Sohie Lee

#### 1st Prize Poster

Laura Zeng '15, Kiley Wong '15, and Lindsey Tang '15 won 1st prize in the poster competition at the CCSCNE conference in April for their poster on twittertrails.com: A Tool for Following the Spread of Rumors.



Laura Zeng '15

### **Project Presentations**

The CS Department is always eager to show off the wonderful work being done by our students!

### Senior Poster Fair



We consider project presentation to be an important component of our program, and require it of all seniors for graduation. On April 15, 28 seniors displayed posters describing CS work or research that they had done during their Wellesley career.



Lyn Turbak with students at the Senior Poster Fair

### CS 220 Open House

On May 7, student HCI projects were displayed in a CS 220 Open House.



### **CS117 Poster Session**

Mobile Apps designed by students in CS 117 were highlighted in a poster session on December 7.



### CS 320 Final Project Demonstration.

The end of the fall semester in CS 320 was also celebrated with a Final Project Demonstration.



# **Summer Activities**

Over the summer, many of our CS and MAS students participated in internships in industry or teaching or did research at companies and programs. Students worked in places throughout, and outside, the United States, but also in the Wellesley Science Center Summer Research Program, with our own CS faculty members!

### Industry Internships

□ 2 Point Perspective Architectures & Interiors (Chicago):

Anna Pfoertsch '18

□ Amazon (Seattle):

Elizabeth Hau '16

☐ Beth Israel/Harvard Medical School (Boston):

Ruby Feng '17

☐ Bank of America (New York):

Grace Hu '17

☐ Blue Labs (Washington DC):

Teresa Tai '16

□ Cogo Labs (Boston):

Karina Chan '16

□ Dealix (Cambridge):

Amy Qiu '17

☐ Emergent Networks (Minneapolis):

Leah Ferguson '16

☐ Fidelity Investments (Merrimack, NH):

Chesley Hooker '16

☐ Goldman Sachs (New York):

Carissa Sun '16 and Sravanti Tekumalla '16

☐ Google (CA, WA, NY):

Erin Altenhof-Long '16, Madeleine Barowsky '18, Naomi Day '17, Megan O'Keefe '16, Lucy Shen '17, Cali Stenson '17, and Zoe Swarzenski '17

☐ IBM (San Jose, CA):

Ashley Thomas '16

□ Inkling (Seattle):

Alice Wong '16 ☐ Intuit (Mountain View, CA):

Claire Schlenker '16

☐ JP Morgan Chase (New York):

Ye Eun Jeong '16 and Laura Zeng '16

☐ Kyruus (Boston):

Magdalena Sowder '18

☐ LinkedIn (San Francisco):

Lucy Cheng '16

☐ LiveAction Inc. (Honolulu):

Jazlyn Akaka '16

☐ Microsoft (CA,WA MA):

Katherine Kjeer '16, Bianca Pichamuthu '16, Jenny Wang '17, Asiya Yakhina '16, and Cecile Yang '16

□ Modelo (Cambridge):

Kathryn Leahy '17

□ Moody's Analytics:

Michelle Duan '18

□ Nordstrom (Seattle):

Laura Ascher '16

☐ Rocket Software (Waltham, MA):

Yuyu Li '17

□ Spare5 (Seattle):

Sarah Moss '17

### **Teaching Internships**

☐ Girls Who Code (CA, MA, DC):

Meckila Britt '17, Julia Chmyz '17, Mary DuBard '19, Mollee Jain '16, Chimuanya Okoro '16, and Samantha Voigt '17

☐ ORT SA CAPE (Cape Town, South Africa): Veronica Lin '15

### **Outside Research**

☐ Dept. of Defense (Washington DC):

Misha Olynyk '16

☐ Harvard SEAS/IQSS (Cambridge):

Jessica Bu '17

☐ MIT Mechanical Engineering (Cambridge):

Michelle Lu '18

☐ MIT Sloan School (Cambridge):

Tiffany Ang '17

☐ Museum of Fine Arts (Boston):

Alison Savage '17

National Institute of Standards and Technology (Maryland):

Vivienne Shaw '16

☐ Texas A&M (College Station, TX):

Meredith McCormack-Mager '16

☐ University of Houston (Houston, TX):

Priscilla Lee '18

☐ USC Institute for Creative Technologies (Los Angeles): Emily Ahn '16 and Alice Zhou '18

### Science Center Research

Lyn Turbak with summer research students

Every year, the Science Center offers Summer Research Awards to students interested in spending their summer doing scientific research with faculty members at Wellesley.

☐ Ben Wood developed Software Bug Detection Tools with Kacey Shen '17 and Sunnia Ye '17.

☐ Lyn Turbak continued his research on Blocks Programming with the help of Jacqueline Young '18, Cece Tsui '18, and Emery Gerndt-Otopalik **'16.** 

☐ In the HCI Lab, Orit Shaer worked with Vivien Chen '18, Rachel Kwon '17, and Sam Mincheva '17 on an interactive museum exhibit, and with Jasmine Davis '17, Christina Pollalis '16, and **Lilian Westort '18,** researching genomics interactions.

☐ Eni Mustafaraj worked with Ella Chao '18, Diana Tosca '18, Jazlyn Takada '18, Whitney Fahnbulleh '17, and Amanda Foun '17 on a project that analyzed video data from online-learning courses to automatically discover difficult concepts or topics for students learning computer science. In addition to working hard, they made time to go out for ice-cream, watch movies, talk about books, and enjoy the baking of Amanda and Diana.



The obligatory selfie from our ice-cream outing in town.

# **Conferences**

Wellesley CS students attended conferences during the school year to exhibit their own research and to attend other presentations to learn about work being done by other students and faculty, both at their own and at other institutions. Some conferences were at Wellesley College, while others are regional, and still others much further afield.

9th International Conference on Tangible, Embedded and Embodied Interaction

Embedded and Embodied Interaction at Stanford

University, January 15-19, was attended by **Orit** 

The International Conference on Tangible,

Shaer with two groups from the HCI lab.

Multi-Touch and Tangible Interaction for

Johanna Okerlund '14 presented Eugenie:

Bio-Design with Casey Grote '14, and Evan

Segreto '15; and EmotiSphere: From Emotion to

Music with Galen Chuang '17, Sigin Wang '15,

Stanford University, January 15 - 19, 2015

PAIN



Jessica Bu '17 presented her work with Eni Mustafaraj on The Visible and Invisible in a MOOC Discussion Forum at the ACM Learning at Scale conference on March 14-15 in Vancouver, BC.





On April 11, a group of from Wellesley CS attended the NEUCS conference at Boston University. Carissa Sun '16 presented a poster, and three other students attended: Jinglan Wang '16, Pamela Wang '17, and Yuyu Li '17. Ellen Hildreth was a poster judge.



On April 17, faculty members and students from Wellesley travelled to the CCSCNE (Consortium for Computing Sciences in Colleges) at Holy Cross in Worcester, MA.

Rhys Price-Jones, Darakhshan Mir, and Jean Herbst attended and participated, along with programming contest team Erin Altenhof-Long '15, Sam Mincheva '17, and Simona Boyadzhiyska '15.

The poster titles and student presenters were:

- ☐ TwitterTrails: A Tool for Following the Spread of Rumors:
  - Lindsey Tang '15, Kily Wong '16, and Laura Zeng '16.
- ☐ The Visible and Invisible in a MOOC Discussion Forum:

Jessica Bu '17.

☐ Towards a Concept Map of App Inventor for Introductory Computer Science:

Sara Burns '16

☐ Folders: A Visual Organization System for MIT App Inventor:

Xixi Lu '15.

☐ Extending List Implementation in App Inventor:

Soojin Kim '15.



and Sara Burns '16.

On March 9-11, **Orit Shaer** had attended the 6<sup>th</sup> Augmented Human International Conference in Singapore. She presented work with collaborators Johanna Okerlund '14, Cassie Hoef '15, Jasmine Davis '17, and Erin Solovey (Drexel): Augmenting Spatial Skills with Semi-Immersive Interactive Desktop Displays: Do Immersive Cues Matter?



On April 18-23, the ACM CHI conference on Human Factors in Computing Systems was held in Seoul, South Korea.

Orit Shaer, with students Grace Hu '17 and Johanna Okerlund '14, attended and presented Exploring the Use of Google Glass in Wet Laboratories.

# **Conferences...**



The annual Wellesley Ruhlman Conference, in which students have the opportunity to present research to a college-wide audience, was held on April 29.



Students attending Ruhlman presentations

Research in CS is flourishing, as evidenced by the many participating CS students:

☐ The Visible and Invisible in a MOOC Discussion Forum:

Jessica Bu '17

- ☐ Extending List Operators in App Inventor:

  Soojin Kim '15
- ☐ Folders, a Visual Organizational Tool for MIT App Inventor:

Shirley Lu '15

- ☐ The Wellesley College Housing Lottery, V. 2.0: Elizabeth Hau '16 and Emily Cetlin '15
- The 21st Century Toy Box: Understanding the Learning Potential of Technology Toys:
   Veronica Lin '15
- ☐ To see the invisible: Application of Google Glass at the Davis Museum:

Sarah Xu '15 and Yi Tong '15

☐ An In-Depth Look at the Benefits of Immersion Cues on Spatial 3D Problem Solving:

Jasmine Davis '17 and Cassie Hoef '15

Breaking Down Communication Barriers with Visualizations:

Joanna Bi '15 and Sheridan Sunier '15

☐ Fitbit User Study: Privacy Concerns in Mobile Fitness Technology:

Cali Stenson '17

Privacy Implications of New York City's Stop-and-Frisk Data:

Nick Manfredi '15

Cracking the Hackers: an Inside Look at the Effects of Security Leaks:

Sonali Sastry '15

Avocoder: An Interface for Tangible Voice Manipulation:

Galen Chuang '15, Sravanti Tekumalla '16

☐ Exploring Playthings: Piloting a New Toy:Katherine LeVine '15

# Oxford, UK May 26-29, 2015 The 9th International Conference on Web and Social Media

On May 26-29 at the 9<sup>th</sup> International AAAI Conference on Web and Social Media, Takis Metaxas, Eni Mustafaraj, Kily Wong '16, Laura Zeng '16, Megan O'Keefe '16, Samantha Finn '12, presented What do Retweets Indicate? Results from User Survey and Meta-Review of Research

# Grace Hopper Celebration of Women in Computing 2015



A large contingent of Wellesley faculty, students, and alumnae again attended the Grace Hopper Conference this year.

The Grace Hopper Celebration of Women in Computing 2015 was held in Houston, TX on October 14 - 16. The conference is designed to bring the research and career interests of women in computing to the forefront. Faculty members **Sohie Lee** and **Darahkshan Mir** enjoyed the opportunity to connect with our current and former students and colleagues and with other women in technology.



At the Tanner Conference on October 27, a large group of our CS students participated in panels and gave talks about internships and work experiences, including:

- Improving Education in Cape Town Through
   New Technologies, Connections and Insights:
   Veronica Lin '15.
- ☐ Seeing One's Self, Seeing the World:

  Sam Mincheva '17, Vivien Chen '18, Rachel
  Kwon '17, Christina Pollalis '16, Jasmine
  Davis '17, and Liliana Westort '18.
- Thinking outside the Bubble: Tech Internships at Non-tech Companies:
   Alison Savage '17, Laura Ascher '16, Meera

Hejmadi '17, Chesley Hooker '16, Teresa Tai '17, and Laura Zeng '16.

- Wellesley in Technology: It Just Got Real: Yuyu Li '17, Karina Chan '16, Leah Ferguson '16, Katherine Kjeer '16, Zoe Swarzenski '17, and Ashley Thomas '16.
- Girls Who Code: Empowering Young Women to Bridge the Gender Gap in Technology:
   Mollee Jain '16, Chimuanya Okoro '16, and Selina Sotomayor '16.
- Designing Technology of the Future: CS research outside of Wellesley:

Emily Ahn '16, Jess Bu '17, Priscilla Lee '18, Michelle Lu '18, Vivienne Shaw '16, and Alice Zhou '18.

# **COMPETITIONS**

Practicing for and participating in programming contests and Hackathons are a great way to hone programming skills and prepare for technical interviews. There was growing interest this year in participating in these events, some of which were hosted right here at Wellesley!

### **CCSCNE** Programming Contest

Erin Altenhof-Long '15, Sam Mincheva '17 and Simona Boyadzhiyska '15 were members of the team from Wellesley coached by Rhys Price-Jones that competed on April 17 at CCSCNE (Consortium for Computing Sciences in Colleges) at Holy Cross in Worcester, MA.

Our team solved 5 of the 6 problems (as did all the top teams). Wellesley came in 6th place overall. Great job!

### Wellesley/Simmons Hackathon



Karina Chan '16 and Cali Stenson '17 were a major force in organizing a 36-hour Wellesley/Simmons Hackathon, held in the Science Center on the weekend of April 17-19. The main goal was to encourage learning new technologies and to provide networking opportunities between students and industry professionals by having integrated teams. Each team had a Wellesley/Simmons student host, students from other colleges, and a team mentor.

Corporate sponsors provided financial support and mentors. Sponsors included:



### **Online Programming Contest**

sponsored by



On September 19, TripAdvisor sponsored an online **Programming Challenge** for Computer Science students. 20+ Wellesley students registered for the event!

### iGEM Competition



On September 24 - 28, summer researchers in Wellesley's HCI lab competed at the International Genetically Engineered Machine (iGEM) competition in Boston, presenting their collaborative project with the Tech Museum of Innovation, *BacPack for New Frontiers*, which earned the team a Gold Medal! Led by professor Orit Shaer and mentored by Lauren Westendorf '15, the team included Sam Mincheva '17, Vivien Chen '18, Rachel Kwon '17, Lily Westort '18, Christina Pollalis '17, and Jasmine Davis '17.

### WHACK



The Wellesley Hackathon (WHACK) was held on October 3 - 4 this year. Each team consisted of students from a mix of Boston area colleges (Wellesley, Simmons, Smith, Harvard, MIT, etc.) and a professional mentor. With intimate teams, a mentor-based experience, and a focus on engaging women, WHACK provided opportunities to meet people, learn, and hack together!



Jenny Wang '17 with WHACK mascot

In preparation for the hackathon, a large number of workshops were scheduled and run by CS students (with help from the CS Club):



### **BOSPRE** Programming Contest

On October 17, the WACS team from Wellesley participated in the ACM Boston Preliminary (BOSPRE) Programming Contest. Need more info here about participants.

# STUDENT CLUBS

### CS Club

CS Club has expanded its activities even more in its second year, and is truly a vibrant and essential part of the Computer Science academic and social life on campus (in addition to a producer of great event spam)! Thanks to Joanna Bi '15, Sheridan Sunier '15, Nina Brooks '16, Karina Chan '16, Claire Schlenker '16, Vivienne Shaw '16, Sravanti Tekumalla '17, Tiffany Ang '17, Cali Stenson '17, Jenny Wang '17, Andrea Jackson '18, Jesslyn Tannady '18, Jacqueline Young '18, and Alice Zhou '18 for making these events possible.

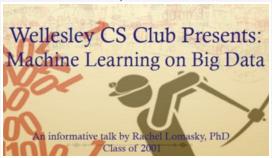
Things got rolling at the *First Open Meeting* of the spring semester:



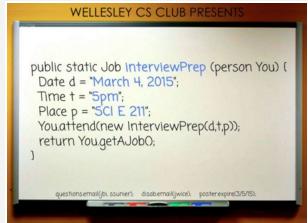
Joanne Bi '15 and Tori Brown '15 did an Introduction to Git on March 5, outlining how it works, and why it's such a great tool to use.



**Machine Learning on Big Data** was delivered on March 11 by **Rachel Lomasky '01** from Opera Solutions in Newton, MA.



On March 4, a **Technical Interview Prep Workshop** was held, including a short presentation and practice interview problems.



The final CS Club event of the year was CS Club Pub Night, at Punch's Alley on May 6. There were some board games and socializing before the final push to the end of the semester!

The Club kicked off the fall semester on September 9 with a **Door Sign Making party** - lots of the professors came to help with the signs which now adorn all of their doors!



The CS Club coordinated multiple *Recruiting Events* in September, including:

- Carolyn Kim '13, Margaret Ligon '13, and Susie Carovillano '16 talked about their work as software developers at Galatea Associates on September 16.
- ☐ Square, Inc. came to Wellesley on September 17 to recruit for internships and full time positions.
- On September 18, Hilary Karls '05 hosted a
   AskMeAnything to talk about her experiences at
   Google, multiple start-ups, and her current position at Uber.
- A technical interview workshop was held on
   September 19, with mock interviews and shared technical interview tips.
- Google (including Michelle Ferreirae '14) came for a full day of outreach about available internship and full-time technical roles on September 24. Events included 1:1 Resume and Technical Interview Preps, Mock Technical Interview with Googlers, and Informational Session and Q&A.

The CS Club sponsored a *Movie Night* on September 25, and watched *The Imitation Game*, in which Benedict Cumberbatch played the mathematician Alan Turing, who "pretty much saved the world" (quote from CS Club). Professors **Brian Tjaden** and **Karen Lange** attended and helped lead a discussion about the implications of the movie and the different aspects of Alan Turing's life.



A **Course Preview** lunch was held on November 9, and professors came to provide information about their courses, and to help students decide which courses to take next.

On October 30, a **CS Trick-or-Treat** was organized by the CS Club. CS professors had great fun wearing crazy hats and handing out candy to visiting students (all supplied by the CS Club).





On November 16, Claire Schlenker '16 led a hands-on workshop about Developing Accessible Web Applications.

-- hosted by the CS Club --

A **Technical Resume Review** by seniors/CS Club was held on November 7th, to help students polish their resumes.

Professor **Scott Anderson** led a CS Club **Node.js Workshop** on November 17.

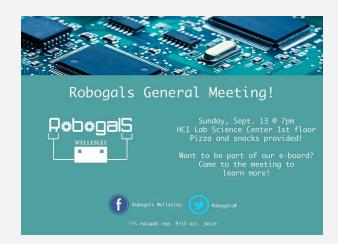




The final CS Club event of 2015 on December 10 was a *Cookie Baking Party*. The club baked all the cookies for the CS holiday party the next day - thanks!

# STUDENT CLUBS ...

### Robogals



The Robogals, a STEM-centered group focused on getting young girls interested in technology and engineering, is also in its second year at Wellesley. Many CS students are active members.

Visit them at Facebook:

https://www.facebook.com/RobogalsWellesley

or their website:

http://robogalswellesley.org/

The *Maker Workshop 2.0* on February 28 introduced robotics, programming, and engineering through fun and engaging activities like littleBits and Scratch.





Future CS students

Robogals sponsored several workshops and events this year, usually held in the HCI Lab. *Robogals Pilot Workshop*, which introduced technical concepts to Wellesley College professors' K-5 kids, was held September 26.



Girl Scouts Mini Maker Workshop III was held on April 26. 20 girl scouts came to campus to learn the basics of coding and engineering.



Robogals also hosted an *Oreos Fundraiser* during reading period!

| Robogals Oreo Fundraiser!  Stressed out because of finals?  Robogals will be selling Oreos and milk during reading period!                               |                               |   |                               |                                  |  |
|--|-------------------------------|---|-------------------------------|----------------------------------|--|
|  | Wed. 12/9                     | Thurs. 12/10  | Fri. 12/11                    | Sun. 12/13                       |  |
| Flavors include: Pumpkin Spice* Brownie Batter* Coconut* Uinter* Peppermint* Double-stuffed Birthday Cake Lumon Cream Gingerbread *Ilmited edition Oreos |                               | Locations   | and times:                    |                                  | 6 Oreos for \$3 \$1 extra for 2 limited edition Oreos \$1 extra for milk |
|  | 3-5pm<br>Lulu 2nd floor       | 3-5pm<br>Sci Leaky<br>Beaker<br>5-7pm<br>Stone-D<br>7-(Ipm<br>Sci Leaky<br>Beaker | 3-Ilpm<br>Soi Leaky<br>Beaker |                                  | Cash, Venmo, PayPal<br>accepted!   |
|  | 9-IIpm<br>Soi Leaky<br>Beaker | Deaker  |                               | 7pm-9pm<br>Lake House<br>Kitchen | ??s mlu Dis. jwice exp. 12/13  |

# **COLLOQUIA**

Throughout the year, we had many opportunities to hear interesting talks by visiting scholars. Some of these talks were coordinated by the CS department, some were presentations for particular courses, and others were organized by the CS Club.

On February 5, former CS Dept Hess Fellow Tyler Moore visited for an informal discussion about Tyler's research area in Security Economics and what academic research in security is like, the benefits and drawbacks of going to graduate school, and how to pick a program and select an advisor you can get along with.



Lia Napolitano '10, who worked at Apple as a Product Designer, came on February 12 to speak about applying HCI in Practice.

Lia Napolitano '10

Our former colleague **Kevin Gold**, who has also worked at RIT, MIT Lincoln Labs, and Google, visited us on February 17 to discuss his work in **Creating Artificial Network Users:** the GOSMR Project.

On February 19, **Lisa Anthony** from the University of Florida gave a talk for CS 220 about *Mobile Touch and Gesture Interaction for Children* 

Christine Bassem from Boston University (who is now our colleague) described her work in Route Coordination in Brokered Environments in a presentation on February 20.



Christine Bassem

We enjoyed an informative talk by Bryce Weidenbeck from the University of Michigan on February 26. The talk was titled *Strategic Reasoning Via Simulation*.

# How do you say "Pecan"? Understanding Language Variation from Data

was the title of a talk given by our new Hess Fellow, **Sravana Reddy**, formerly Neukom Postdoctoral Fellow in Computer Science & Linguistics at Dartmouth College.



Sravana Reddy

On March 5, Elena Glassman, Ph.D. student at MIT, came to the HCI Lab to describe two systems, *OverCode* and *Mudslide*, which help teachers be more effective while teaching online and at scale.

Marie Vasek '12, currently a Ph.D. student at Southern Methodist University and a research scientist at StopBadware, visited to give her expert opinion on *The Promises and Perils of Bitcoin*.



Marie Vasek '12

On April 16, a talk in the HCI Lab on Toward Adaptive Brain-Computer Interfaces was presented by Beste Filiz Yuksel, Ph.D. candidate at Tufts University.

Nichole Burton '13, Head of Creative at RosieApp, came to give a talk for CS 249 on April 17 on *Effective UI/UX Design*. Nichole also held two workshops during the weekend of the Wellesley Hackathon, A Crash Course in User Interface Design, and How to Be a Majestic Unicorn: On Navigating the Tech Design Industry

On September 30, **Ben Wood** led a discussion on **CS Grad School**. Ben and other CS faculty members shared their own grad school experiences. Perspectives from alums who went on to grad school were also discussed. Topics included choosing a school and advisor, M.S. versus Ph.D., transition from Wellesley, preparation, and application.

Maureen Stokan, Associate Director of Admissions at CMU, came on October 7 for a lunchtime information session to talk about *Graduate School at CMU*, including programs in networking, information security, mobility, and software management, as well as their Scholarship for Service Program.

Two presentations were given by alumnae from Facebook: on April 17, Erin Davis '14 and Erica Dohring '14 from Facebook ran a workshop on Crushing Your Coding Interview. Erin also offered Tech Talk: Source Control at Facebook on April 21.

The HCI lab hosted Juan Gilbert and Daniela Rivera of the University of Florida on April 28, to discuss with CS faculty the possibility of an exchange program for Wellesley students with the University of Florida, which has had great success with Recruiting and Mentoring Underrepresented Minority Students.

On September 16, Miguel Ceriani, Ph.D. student at the University of Rome, presented a talk on Using block programming for designing structured queries on Linked Data.

# Gaming Futures Panel: Perspectives of Women in Games and Play

This event on February 11 featured student demos, a Jason Rohrer exhibit, and a panel on gaming futures. Panelists include Katherine Isbister and Soraya Murray, UCSC, Claudia Pederson, Wichita State University, Rayla Heide '10, Riot Games, and Cassie Hoef '14, Microsoft. The panel highlighted the experiences of female alumnae, academics, and independent game developers.

### SPECIAL EVENTS

Everyone knows that Computer Science is a department that likes to celebrate and have funhere's a few of the special events that helped us do that.

### **Senior Prank**

Shhh! It is not a very well-kept secret that the CS seniors help decorate the Science Center on the last day of classes each year (usually the decorations hang around for most of the summer).



Seniors decorating the Science Center

### **Senior Luncheon**

Our annual luncheon to honor graduating CS and MAS students was held in the Cow Chair Room at the Wang Campus Center on May 11, with food planning and gifts by Jean Herbst and decorations by Rita Purcell. We feasted on a yummy lunch from Baker's Best, and presented gifts and awards. We had so many outstanding seniors in 2015, we gave two Academic Excellence Awards and two Spirit Awards this year. The Academic Excellence awards were presented to Nick Manfredi and Mary Beth Kery. The Spirit Awards were presented to Sheridan Sunier and Joanna Bi.



CS/MAS Senior Luncheon in the Cow Chair Room

Everyone posed together for an after-lunch photo!



CS/MAS seniors with faculty and staff

### CS vs. Math Ultimate Frisbee

# Tuesday May 12 1:30-2:<u>3</u>0pm

1:30-2:30pm
ON MUNGER MEADOW

Faculty and student participants were instructed to bring:

- a water bottle
- a light shirt and a dark shirt
- a pair of shoes that you can run in (not necessarily cleats!)
- yourself

and, obviously, the will and skill to beat the Math team!

### **Reunion Open House**

On June 6 (Reunion Weekend), there was a CS Open House held in the HCI Lab for CS alums.

### Holiday Get-Together

The Pendleton Atrium was the location again this year for our Holiday Get-Together on December 11. **Jean Herbst**, **Rita Purcell**, and **Brian Tjaden** set up, and everyone assisted with the clean-up, although **Ben Wood** was especially helpful washing all the dishes.

We all enjoyed mingling with students, faculty, and their families, and the food theme (we always have one), which was Hot Pot!



**Lyn Turbak** and the CS Club baked delicious chocolate chip cookies for dessert.

In addition to eating way too much, we also enjoyed poster presentations from graduating seniors **Erin Altenhof-Long '15** and **Shuang Yin '15**.

# **CHAIR'S CORNER**

### A Message from Brian Tjaden

Interest in CS continues to grow rapidly! The number of CS majors has quadrupled and the department's enrollments have doubled in the past five years. The majority of all Wellesley students now take one or more CS classes. Over the past year, the department has continued its evolution to meet the demand from students for computational learning and training and to be at the forefront of advances in the field. New courses in exciting areas of CS, new faculty hires, strengthened relationships with industry, and engaging extracurricular events sponsored by our very active CS club are examples of the department's dynamism of the past year. Stay tuned for new initiatives in the year ahead. It's a great time to study CS at Wellesley!

A very special thank you to Ellen Hildreth who recently completed a four-year term as chair of the department. Ellen is an inspiring leader who directed the department through an exciting time of explosive growth with many new initiatives to strengthen the department, including a redesign of our CS 111 gateway course, our stunning new HCI lab, faculty hires that bring new expertise to the department, a decennial self assessment coupled with a review by an external visiting committee, our new Senior Poster Fair and, of course, our 2<sup>5</sup> anniversary celebration! Ellen is on a very well earned sabbatical leave this year, serving as co-coordinator for education at The Center for Brains, Minds & Machines, a multi-institutional collaboration headquartered at MIT.



### Support

The CS department relies on the generosity of alumnae, friends, and corporations in helping support the department to provide an excellent liberal arts education for women studying computer science at Wellesley. Your gift enables students to attend conferences such as the Grace Hopper Celebration of Women in Computing, supports student research, provides state of the art computing technology, and allows the department to host a variety of events for the Wellesley CS community. Every gift makes a big difference. Non ministrari sed ministrare.

We would like to express our gratitude to Rhys Price-Jones and his wife Laurel for their generous donation to the CS department this year. We would also like to acknowledge the family of Kate O'Hanlon '15 for their pledge to help future students attend the Grace Hopper Conference.

Gifts can be sent to Gift Processing, Wellesley College Office of Resources, 106 Central Street, Wellesley, MA 02481 with a note designating the gift for the CS department. Your gift to Wellesley CS is tax deductible.

Thank you for your support.

### Email

Let us know what you've been up to and make sure that you receive future editions of this newsletter by sending e-mail to Brian Tjaden at btjaden@wellesley.edu

### LinkedIn

The LinkedIn Group for the Wellesley CS and MAS community (named Wellesley CS & MAS) now has nearly 500 members. Check out this resource for communication and job opportunities within the community. http://www.linkedin.com/e/gis/1067337

### Alum Webpage

If you would like to add or update your contact information on the CS alumnae webpage:

http://new.wellesley.edu/cs/people/alumnae