UC SANTA BARBARA Computer Science College of Engineering

#### UC SANTA BARBARA Computer Science

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### **MESSAGE FROM THE CHAIR**



Dear Alumni and Friends of UCSB Computer Science,

I had the privilege of taking over as department chair this past summer, following three very successful years with Prof. Ambuj Singh at the helm. (Thanks, Ambuj!) It is a great time to be involved with the accomplished students, staff, and faculty in Computer Science – I am quite proud of our department.

The past year has been an exciting one for UCSB CS, with continued growth in demand for our courses, our degree programs, and our graduates; research achievements and recognition for our faculty and students; and new faculty colleagues joining the department who are working in important areas of the field. Our students are seeing tremendous post-degree opportunities. As computing continues to transform all sectors of society, business, and government, our graduates are in high demand, and our alumni are playing important roles in established tech companies, fledgling startups, government, and academia, as software developers, project managers, entrepreneurs, researchers, and more.

The Department of Computer Science currently has about 450 undergraduate and 170 graduate students, in addition to many students from other departments who take our courses, and we're seeing record numbers of applications and increasingly excellent quality of our enrolled students. Our faculty are bringing in record amounts of research funding. A new Tutor program has begun to engage CS undergraduates to provide support for their peers in some of the early curriculum courses. Our students are receiving many honors and awards – as are our faculty.

We're very happy to be joined by new ladder faculty Yufei Ding (from North Carolina State University), Trinabh Gupta (from the University of Texas, Austin via Microsoft Research), and Yu-Xiang Wang (from Carnegie Mellon University via Amazon) and new teaching faculty Richert Wang (from UC Irvine).

Our CS Summit event on March 6, 2017 brought together the full department community to showcase amazing undergraduate and graduate research and industry collaboration, highlighted by a fascinating Distinguished Lecture by Jeff Dean of Google Research. We are looking forward to the next CS Summit, to be held on campus on Friday, March 16, 2018. You're invited – we hope you can join us to catch a glimpse of what's going on in CS at UCSB and to interact with the department's students, faculty, alumni, and friends.

We welcome your continued involvement in the Computer Science department. Let's stay in touch!

Matthew Turk Professor and Chair

# **New Faculty: Richert Wang**

We are pleased to welcome Lecturer PSOE Richert Wang to UC Santa Barbara. Richert joined in Fall 2017 after teaching at UC Irvine. He has a joint appointment, split between Computer Science and the College of Creative Studies.



Q: Could you tell us a bit about where you came from?

I grew up in the suburbs of Los Angeles, CA (Pomona). I moved to Orange County when starting college and lived there most of my life,

residing temporarily in Paris, France and Mountain View, CA during graduate school.

### Q: What are the courses that you are going to teach in Fall and the upcoming quarters?

I will be co-teaching CMPTGCS 1A with Phill Conrad this Fall. In Winter 2018, I will be teaching CMPSC 8. In Spring 2018, I will teach CMPSC 32 and one class in CCS that is still TBD.

### Q: What inspires you to teach? What is your teaching philosophy?

Teaching is really fun for me! I have rare job where I end my day happier than when I started it! I love helping students learn about computer science, watch them apply their knowledge, and see them progress in their professional careers. I feel like my work has a large impact on the future generations of computer scientists.

My main goal as a lecturer is to convey the underlying theory and concepts of the topics I teach. Regardless if students want to work in industry or academia, the skills acquired at a university are the set of tools that enable students to accomplish great things. In the real world, nobody is going to say "your job is to do what you did in class assignment X." Computer scientists are normally faced with challenging problems without standard solutions. The fundamental skills acquired through class instruction enable students to make the best decisions when solving problems. Overtime, this set of tools will expand with experience. In my classes, I try to emphasize conceptual understanding and explain the relevance of why certain skills are important and when someone may consider using them.

### Q: Why UCSB? What's your first impression about this campus and the department?

In my opinion, UCSB is one of the most beautiful campuses I've seen. I don't mind bragging to my friends about how close my office is to the shore! I noticed UCSB's computer science department isn't as large as some other computer science departments. However, I am extremely impressed with the quality of our faculty at UCSB, and feel like I can learn a lot and improve my teaching by working with them. I am also impressed with UCSB's focus on undergraduate education. The collaboration between computer science and CCS' Computing program is a really attractive and unique opportunity for not only me as an educator, but for the students as well. I feel like UCSB allows me to have a profound impact with the students I will work with. UCSB also provides a lot of flexibility to pursue projects I'm interested in, including computer game science.

#### Q: What do you do in your spare time (if any)?

Whenever I do have moments of spare time, I spend it on various things. Mainly, I like to spend time with friends, read the news, and play with my little dog. I like to play video games whenever I have a few moments to do so. I also like playing tennis and watching basketball and hockey games. I play the trumpet as well, but am not as active with that as I used to be.

### Q: Do you like Santa Barbara so far? How is it different than your life in Irvine?

So far Santa Barbara has been great! I really like downtown Santa Barbara and have already tried several good restaurants here. I'm still learning all the stores and roads in the area, and am learning what times are best to beat rush hour traffic, which isn't as bad as Los Angeles / Orange County traffic. I do like the climate here a lot better than Irvine, and Irvine's weather isn't horrible. There are lots of things I haven't been able to explore yet, but I'm really looking forward to it!

## New Faculty: Yufei Ding

The Computer Science Department is pleased to welcome Prof. Yufei Ding, who joined the department as a new Assistant Professor in November 2017.



## Q: Can you tell us a little bit about your background?

I started my PhD study in Computer Science in 2012 and received my PhD from North Carolina State University in 2017. Before that, I have earned my B.S. and M.S. in Physics from

University of Science and Technology of China and The College of William and Mary respectively.

#### Q: Tell us about your research?

My research interest resides at the intersection of Compiler Technology and (Big) Data Analytics, with a focus on enabling High-Level Program Optimizations for data analytics and other data-intensive applications. Compared with traditional compiler optimization, our high-level program optimization, e.g., algorithmic-level optimization, is often more efficient and powerful. With the cooperation of domain-specific language, compiler, and runtime system, we could automatically generate better algorithms that are orders of magnitude faster. Our optimization has been applied to many popular algorithms in Machine Learning, Deep Learning, and other High-Performance Applications, with related works published in major venues in both computer systems and data analytics areas, such as ASPLOS, PLDI, VLDB, and ICML.

### Q: Are there any memorable moments in your academic career so far?

One of the memorable moments was when I got my first course-evaluation form as a python-lab instructor. "Yufei was very helpful in lab sessions and great about responding to emails. I would like to major in CS after taking this course and lab." - from an anonymous undergraduate student. It was an introductory-level course and also my first course as a TA. I put lots of efforts to the class, but still worried about whether I could pass my understanding and passion of the subject to the students. The evaluation actually freed up my mind, as I knew that all my efforts had paid off.

### Q: Why UCSB? What's your first impression of this campus and the department?

I chose UCSB because I can foresee a bright future for my career here. The UCSB Department of Computer Science is a leading one in the world with many worldclass faculty members. In particular, its strength in research areas including system and machine learning matches well with my interdisciplinary background and research interest. Moreover, I am impressed by the friendly academic environment from the interview experience, where many collaborations have been facilitated. Furthermore, the interaction with students was also joyful. It will be a great fun to work with students who are highly motivated and full of research enthusiasm. All these aspects will benefit me in pursuing a productive future here at UCSB.

My first impression of the campus and the department is one of the best among my interviews. I appreciated and enjoyed the discussion with many worldrenowned researchers in the department. The insightful discussion with them helped me draw a clear picture of an exciting and collaborative career path in the department. Moreover, I would like to acknowledge Amr El Abbadi and Ambuj Singh, who took me to a joyful relax from the interview – enjoying the sunshine and the ocean walk around the beautiful campus. I believe UCSB will be a perfect place for doing research.

#### Q: What do you do in your spare time?

I enjoy water sports such as swimming and paddle boarding in my spare time. I only had the chance to play in a swimming pool or a small river before; the ocean would be an exciting challenge for me.

#### Q: Do you like Santa Barbara so far?

I really like the lifestyle in Santa Barbara: You can find crowds of people soaking up the sun and working out at the beach. In particular, Butterfly Beach, which is only miles away from home, is my favorite beach for its great view. Taking a walk along the beach is such great joy that it has already become a part of my daily routine.

# New Faculty: Trinabh Gupta

The Computer Science Department is pleased to welcome Prof. Trinabh Gupta, who will join the department as a new Assistant Professor in Spring 2018. Trinabh received his PhD from the University of Texas, Austin, in 2017, and is currently doing a postdoc at Microsoft Research.



Q: Where did you grow up? Tell us about your background?

I grew up in Northern India, in the mountainous state of Himachal Pradesh. Interestingly, all my family members (except me) are physicians. However, I studied Computer Science. I got my undergraduate degree from IIT Delhi and PhD from UT Austin.

#### Q: What's your favorite sport?

Being from India I naturally love cricket. But my favorite sport is soccer. I religiously follow Manchester United.

#### Q: Can you briefly summarize your research?

My research is in the area of computer systems, in particular, in building systems that provide strong security and privacy properties. As one example, I built an on-demand video delivery system, called Popcorn, that hides, even from the video service provider, the knowledge of which movie a user is watching. That is, the video service provider is able to serve movies without knowing which movies users are requesting!

Q: What are your short term and long term research goals?

As a researcher, I want to create technology that deeply impacts society and finds widespread use. With my line of work on private systems, I want to demonstrate a practical alternative to the status quo – a world in which people's right to privacy on the web is not left solely in the hands of laws, policies, trust, and hope, but vigorously defended through technical solutions.

### Q: What courses are you looking forward to teaching?

I think I will have a lot of fun teaching undergraduate and graduate level courses in the systems and security area. I am also looking forward to teaching special topics courses on blockchain, distributed ledgers, and cryptocurrencies.

### Q: Why Computer Science at UCSB? What influenced your decision?

UCSB CS is a highly reputed institution with a topnotch faculty. Obviously, the aforementioned matters but there is another big reason — a rare-to-find familylike warmth. UCSB was my last job interview and I was naturally tired. However, somewhat counterintuitively, I felt re-energized by the end of the interview. Faculty members at UCSB frequently collaborate and passionately support each other. Students and faculty are also incredibly entrepreneurial. I felt that UCSB CS is not only high-quality but also a fun place to be.

# New Faculty: Yu-Xiang Wang

The Department of Computer Science is delighted to announce that Dr. Yu-Xiang Wang, an expert in machine learning, will be joining the faculty in Fall 2018. Yu-Xiang completed his PhD at Carnegie Mellon University and is currently doing a postdoc at Amazon. Here's our first interview with Yu-Xiang.



#### Q: How did you choose UCSB? Tell us about your story.

UCSB is a worldrenown university and the computer science department that I am joining is gaining a lot of momentum, especially in AI and data science-related areas. There are some really exciting opportunities at UCSB for me to develop my career. Also, it just feels right from within!

I enjoyed the campus visit, the view of a beautiful Pacific coastline, and all the technical discussions with my future colleagues. At that moment, my heart was telling me that this is where I wanted to live.

#### Q: What courses would you like to offer next year?

I have not completely decided on the many details of my courses, but I am likely to offer a graduate course in advanced machine learning and possibly a third or fourth year undergraduate course in convex optimization. These courses will cover both classic and modern topics in machine learning, and will be structured in ways that make it easy for students to appreciate the connections between popular techniques and how those learning algorithms work underneath.

#### Q: Can you tell us about your research interests?

My research interests revolve around the intersection of machine learning, statistics, and optimization. Specifically, my work focuses on developing provable and practical methods for various challenging learning regimes (e.g., high dimensional, heterogeneous, privacy-constrained, sequential, parallel and distributed) and often involves exploiting hidden structures in data (generalized sparsity, union-ofsubspace, graph or network structures), balancing various resources (model complexity, statistical power and privacy budgets) as well as developing scalable optimization tools.

#### Q: What is your research philosophy?

I adopt the problem-driven but mathematical-oriented approach to research. In particular, I'd like to be able to formulate a real problem as concrete mathematical model, so we can get to the bottom of it (e.g., by identifying the optimal algorithm). The mathematical analysis often leads to insights about structures of the problem, which can then be used to develop faster/more reliable algorithms as well as revising the mathematical model to make it more realistic.

In general, I find my research strongly influenced by Hamming's talk "You and your research." I highly recommend it if you haven't seen it.

#### Q: What made you choose academia over industry?

We are lucky to be in an era where both academia and industry have very exciting problems to tackle. I prefer academia for the freedom to pursue something more fundamental and more rewarding in the long run. Also, I enjoy teaching and advising students.

### Q: Do you have any advice for students who want to pursue machine learning studies?

I have three pieces of advice for junior PhD students in machine learning and AI:

1. Don't just follow the trend and replicate fancy deep learning models. Go back to the basics, hone your math and keep adding to your bag of ``hammers," so that you will be able to smash something new and spectacular.

2. Get your hands dirty. Implement everything yourself at least once. Keep concrete applications in mind and test your algorithm out on data sets.

3. Aim big but start small. Set up a grand long term goal and keep working towards it, but you should also keep writing down smaller milestones and share the intermediate results with the world.

# **Faculty Awards and Honors**



Professor Rachel Lin was awarded the 2017 National Science Foundation's Faculty Early Career Development (CAREER) award for her work on the topic, "Obfuscation from a Complexity Theoretic Perspective." The extremely competitive NSF CAREER award makes it possible for an assistant professor in science or engineering to launch an ambitious research program.



Professor Stefano Tessaro received the 2017 Sloan Research Fellowship, joining the prestigious ranks of earlycareer scholars who represent the most promising scientific researchers working today. The achievements and potential of Sloan Research Fellows place them among the next generation of scientific leaders in the United States and Canada.



**Professor Giovanni Vigna** was named a **2018 IEEE Fellow** by the Institute of Electrical and Electronics Engineers for his contributions to Internet security and cybercrime prevention.



Professor William Wang received a 2017 IBM Faculty Research Award for his work on artificial intelligence and natural language processing research. The IBM Faculty Awards is a highly competitive worldwide program intended to foster collaboration between researchers at leading universities worldwide and those in IBM research, development and services organizations.



**Professor Rich Wolski** was chosen as **"Outstanding Faculty Member"** by Computer Science graduating seniors in 2017. In addition to teaching the department's Operating Systems course, he is co-founder of Eucalyptus Systems, Inc. and also has led several national-scale research efforts in the area of distributed systems and is the progenitor of the Eucalyptus open source cloud project.



Professor Xifeng Yan is the recipient of a 2017 Visa Research Faculty Award. This award is a gift award to support Professor Yan's research in the areas of data mining, machine learning, and artificial intelligence. Visa Research is a research community of scientists and engineers conducting applied research on the challenging problems in the payment industry and provides technical thought leadership to guide the company's future.

## **Student Awards**

Fourth year Research Assistant and a PhD candidate at the UCSB's Distributed Systems Lab, our own Victor Zakhary was voted Outstanding Teaching Assistant for 2017. Award recipients are determined by CS student votes.

PhD student May ElSherif won the Fiona and Michael Goodchild Graduate Mentoring Award in 2017, presented by the UCSB Graduate Division. ElSherif is one of only three recipients of this distinction campus-wide for the 2017 academic year.

Final-year College of Creative Studies computing student Daniel Spokoyny wins the 2017 Chancellor's Award for Excellence in Undergraduate Research and the 2017 National Science Foundation Graduate Research Fellowship in Machine Learning. The Chancellor's Award for Excellence in Undergraduate Research is bestowed upon one or more graduating seniors who have distinguished themselves as researchers. Spokoyny has been recognized with this honor based on the quality of his work.

CS undergraduate student John Lau received an award from the 2017 United Airlines Scholarship Fund for use toward his educational expenses. United Airlines investments in the education and development of hundreds of undergraduate and graduate students by awarding more than \$1 million in scholarships to its employees and their families through the United Scholarship Fund (USF).

CS undergraduate student Hyun Bum Cho received a \$1,000 scholarship from DiscoverE – a coalition of engineering professionals. Hyun is one of three UC Santa Barbara engineering undergraduate students chosen for their work to receive the award.

Davina Zamanzadeh, an undergraduate student, was selected as a 2017 KPCB Engineering Fellow. She joined a group of 54 students selected from close to 2500 quality applicants from across the country who represented their universities in Summer 2017 in Silicon Valley. She represented UCSB as Engineering Fellow for 2017.



### Google Luminary Packs the House at UCSB Computer Science Summit

Machine learning idol Jeffrey Dean was one of Google's earliest employees. Since joining Google in 1999, Jeff has invented MapReduce, Bigtable, Spanner, and most recently TensorFlow. All these are widely used cloud computing tools for distributed computing, database, and scalable machine learning. Jeff is currently a Google Senior Fellow working on the Google Brain project. He also is a member of National Academy of Engineering, and a Fellow of the ACM.

At summit.cs during his fully-packed distinguished lecture titled Building Intelligent Systems with Large Scale Deep Learning, Jeff reflected on Google's journey in large-scale deep learning research. It all started from their ICML 2012 work on unsupervised learning for cat images. "Now with more computing power and more data, neural networks work better than other methods," said the machine learning guru. "We have observed surge use of deep learning across lots of Google products in recent quarters," he continued.

More specifically, Jeff noted that after the deployment of deep learning models in Google's speech recognition product system, they have observed a 30% reduction in word error rate. Google's own open-source deep learning software TensorFlow now has 475 non-Google contributors and thousands of stars in Github.

# **Paper Awards**

For their paper titled **"#Indigenous: Tracking the Connective Actions of Native American Advocates on Twitter," Professor Elizabeth Belding and CS graduate student Morgan Vigil-Hayes** received a Best Paper Honorable Mention at the 20th ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW 2017).

A paper titled "Ramblr: Making Reassembly Great Again" received the Distinguished Paper Award at the 2017 Network and Distributed System Security Symposium (NDSS) held in San Diego. Congratulations to graduate students Ruoyu Wang, Yan Shoshitaishvili, Antonio Bianchi, Aravind Machiry, John Grosen, Paul Grosen, and professors Christopher Kruegel and Giovanni Vigna.

For his paper titled **"Automatically Characterizing Large Scale Program Behavior," Professor Tim Sherwood** won the Most Influential Paper Award at the 22nd ACM International Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS).

CS graduate student **Binyi Chen and Prof. Stefano Tessaro** received the "Best Paper Award" at EUROCRYPT 2017 in Paris, one of the two top-tier yearly conferences in cryptography devoted to all aspects of cryptology. Their paper, titled **"Scrypt is Maximally Memory-Hard,"** is joint work with the cryptography group at IST Austria, and Leonid Reyzin at Boston University.

PhD students Victor Zakhary, Theodore Georgiou, Cetin Sahin, and Prof. Amr El Abbadi won the 2nd Place Vision Paper at SIGSPATIAL 2017 for their paper "LocBorg: Hiding Social Media User Location while Maintaining Online Persona".

CS graduates **Heba Saadeldeen**, **Summer Deng**, and **Prof**. **Tim Sherwood** won a best paper award at MEMSYS' 17 for their paper titled "Thermal-aware, heterogeneous materials for improved energy and reliability in 3D PCM architectures".

**Prof. Yinghui Wu**, a former postdoc in Prof. Xifeng Yan's lab, receives the 2017 SIGMOD Best Paper Award for his paper titled **"Parallelizing Sequential Graph Computations"**. Prof. Wu spent three years as a postdoctoral research scientist during Aug 2011 - Aug 2014 at UCSB's CS Department, and then went on to become a professor in the School of EECS at Washington State University.

**Prof. Tobias Hollerer** received an Early Innovator Award at 2017 IEEE ISWC/Ubicomp joint conference, the main conference venue for research in wearable and ubiquitous computing. The award recognizes the paper from the first ISCW conference that has had the most impact in the subsequent 20 years. The paper, titled **"A touring machine: Prototyping 3D mobile augmented reality systems for exploring the urban environment"**, was co-authored by Steven Feiner, Blair MacIntyre, Tobias Höllerer, and Anthony Webster in 1997.

PhD student **Stratos Dimopoulos**, and his research advisors **Profs. Chandra Krintz, and Rich Wolski** recently received the Best Paper Award for their paper "Justice: A Deadline-aware, Fair-share Resource Allocator for Implementing Multi-analytics" at the IEEE Cluster 2017 Conference.

CS Associate Research Scientist John O'Donovan and his associate Barry Smyth have been awarded "Most-Influential-Paper-Award in 2017" for their work titled Trust in Recommender Systems, originally published at IUI 2005. The award will be presented during the 2017 Intelligent User Interface Conference in Limassol, Cyrus.

### UCSB Women in Computing meet Technology Leaders at the Grace Hopper Conference



Thirteen women from the Computer Science department attended this year's Grace Hopper Celebration for Women in Computing conference in Orlando, Florida. The three-day conference brought together more than 18,000 women technologists from industry and academia. Enthusiastic crowds and a star-studded line up of keynote speakers like Melinda Gates and Dr. Fei Fei Li gave the conference the unique vibes of a rock concert.

The keynotes were thought-provoking and inspirational. In her keynote speech, Dr. Fei-Fei Li recounted her very first "computer vision" experiment — putting electrodes on a cat's visual cortex and connecting the output to a loudspeaker to "hear" the cat's visual perception as it responded to pictures on a screen. She was recreating the landmark Hubel and Weisel experiment of 1959 to understand the computational structure of the brain, and described how those early findings shaped the fields of computer vision and artificial intelligence. Other speakers shared similar stories about what had inspired them to be technology leaders. Debbie Sterling, CEO of Goldieblox, spoke about how she was disrupting the pink aisle of toys by designing non-stereotypical female engineer toy characters. "Debbie Sterling's story has gotten

me thinking about starting my own company, someday." said master's student Sujaya Maiyya

The speakers connected with the students by talking candidly about circuitous career paths and numerous obstacles that they faced along the way. Dr. Deborah Berebichez, the first Mexican woman to graduate from Stanford University with a PhD in Physics, spoke about how she had failed her exam to enter the Stanford PhD program for Physics, and had to take it a second time. Dr Fei Fei Li spoke about how she ran a dry cleaners by night and studied Physics at Princeton by day. Debbie Sterling spoke about the many difficulties she faced in starting a business in a field dominated by men. The message to the attendees was loud and clear — be bold and persist! CS student, Sayali Kakade reflecting on Dr. Berebichez's story said: "She never believed that because she had failed the first time, that she wasn't smart enough or wasn't meant to become a PhD in Physics. She knew what she wanted and she went for it. All of the presentations taught me one main thing: to be unapologetically fierce."

The conference offered multiple technical tracks on Data Science, Artificial Intelligence, Security, and Human Computer Interaction to name a few. Students used this opportunity Post confrence celebrations with members of the diversity committee. (Top row from left to right) Linda Petzold, Sanjana Sahayaraj, Phillip Conrad, Nevena Golubovic,

Elizabeth Belding, Dana Nguyen, Deeksha Dangwal, Shirin Nilizadeh (Bottom row, left to right) Caitlin Scarberry, Kirti Bhandari, Davina Zaman, Diba Mirza

(On back cover) GHC attendees (from left to right) Sujaya Maiyya, Sayali Kakade, Kirti Bhandari, Dana Nguyen, Shirin Nilizadeh, Sanjana Sahayaraj, Deeksha Dangwal, Angela Yung, Davina Zaman, Bryanna Phan, Diba Mirza. to get introduced to fields they hadn't yet explored like Virtual Reality, security in IoT, and open source in government. The sessions organized by CRA-W focused on careers in academia and research. Second year PhD student Sanjana Sahayaraj, who wants to become a professor attended almost all the sessions on academia and research. After attending the sessions she plans to find mentors in academia in U.S and India. Although academia is her top choice, she networked with people from research labs and industry and learned about research positions where her knowledge and skills would be useful. She now has a plan A, plan B and plan C!

One of the biggest attractions was the career fair where companies and universities compete for talented women. Final year PhD student Veronika Strnadova-Neeley and a new mom said that she valued the opportunity to network with national labs and universities looking for postdoctoral researchers or new faculty members. Other students reported interviewing with multiple companies and were happy to land jobs and internships. Final year CS undergrad Davina Zaman is interested in pursuing a PhD and spent her time talking to universities at the career fair about their grad problem.

The cohort of women from UCSB also spent time bonding with each other — they went on a group trip to Disneyland, had dinner together and danced all night at Friday night celebration organized by the conference.

"Hands down, the Grace Hopper Conference marks a milestone in my life. I absolutely loved the speakers. The keynote speeches were very inspiring. Mary Spio, Debbie Sterling, Mercedes Soria, Deborah Berebichez, and Maureen Fan are now all in the top ten most memorable talks I've ever heard in my life. I got to meet a few Native American women in computer science at a panel called "The Myth of the Unicorn," where the very brave women on the panel told their stories about the intense challenges they had to face to gain recognition for their community. I enjoyed an entertaining but simultaneously terrifying presentation on the dangers of social engineering from a two-time DEFCON social engineering Capture the Flag champion," said undergraduate student Lia Yeh.

"I came to GHC with the hope of having fun, learning more about the computing field, and meeting a diverse group of women. But I left GHC with so much more than that! I now look at the world through a new lense, and I have this new burst of motivation to continue helping others and assuring them that they are not alone. GHC isn't just a conference for women technologists, it's a celebration for all of us who've defied odds and continue to shoot for the stars — and I am eternally grateful of the department for allowing me to be a part of this!" added undergraduate student Dana Nguyen.

Having a strong presence at the Grace Hopper Conference was a priority of the department's diversity committee, which at the time was chaired by Prof. Elizabeth Belding. Travel costs for ten students was made possible by the generous support of Mrs. Susan and Mr. Bruce Worster. Others were supported by Profs. Tim Sherwood and John Gilbert and by scholarships from Google, Microsoft and the Anita Borg Institute. The trip was organized by faculty member Diba Mirza and CS staff member Greta Halle.

## Distinguished Alumni

UCSB Computer Science graduate Gang Wang accepted a position with Virginia Polytechnic Institute and State University (Virginia Tech) as Assistant Professor beginning Fall 2016. Earlier, he received a PhD Dissertation Fellowship from UC Santa Barbara (2015), and a Best Practical Paper Award from ACM SIGMETRICS (2013).



Yan Shoshitaishvili accepted a tenure-track assistant professor faculty appointment at Arizona State University. Focused on advancing the state of the art of binary analysis, Yan currently works in the UCSB Computer Security Lab with Professors Christopher Kruegel and Giovanni Vigna.



CS graduate **Yanick Fratantonio** joined **EURECOM** as an Assistant Professor beginning September 2017. Yanick worked in the UCSB Computer Lab with Professors Christopher Kruegel and Giovanni Vigna. His research spans various aspects of mobile security, such as malware detection, vulnerability analysis, characterization of emerging threats, and development of novel protection mechanisms.



CS alumna **Xia Zhou** is doing well in her academic position. She received a prestigous **2017 Sloan Research Fellowship**. Xia is an Assistant Professor in the Department of Computer

Science at Dartmouth College, and previously she received her PhD from UCSB CS.

Computer Science PhD student Faisal Nawab joined University of California, Santa Cruz as an Assistant Professor in Computer Science in Jan. 2018. He obtained his PhD in UCSB CS in 2017. under the supervision of Profs. Divy Agrawal, Amr El Abbadi.





#### UC SENTE BERBARA Computer Science College of Engineering

UCSB Women in Computing meet technology leaders at the Grace Hopper Conference. Read about it on page 10.



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