Samantha Robertson

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Education

AUGUST 2019 - PRESENT

University of California, Berkeley – *Ph.D. Student, Electrical Engineering and Computer Science*

Honors: EECS Excellence Award

SEPTEMBER 2015 - JUNE 2019

Stanford University – *B.S. Mathematical and Computational Science with Distinction*

Honors: Elected to Phi Beta Kappa, J.E. Wallace Sterling Award for Scholastic Achievement

Experience

SEPTEMBER 2018 - DECEMBER 2018

Stanford Computational Policy Lab; Stanford, CA – *Undergraduate Researcher*

Analyzed nationwide police traffic stop data for racial bias using raw data visualization and the veil of darkness test proposed by Grogger & Ridgeway in 2006. Assessed the strengths and limitations of the test from an applied statistics perspective.

JUNE 2018 - AUGUST 2018

Stanford Cardiovascular Biomechanics Computation Lab; Stanford, CA – *Undergraduate Researcher*

Designed and implemented a graphical user interface in C++ with Qt for lumped parameter cardiovascular modeling in the open source cardiovascular modeling software SimVascular.

JUNE 2017 - PRESENT

Stanford Brain Interfacing Lab; Stanford, CA – *Undergraduate Researcher*

Developed real time visualization capabilities in C and Python to specialize a custom real-time open source software for systems neuroscience research. Implemented a Kalman filter neural decoder and ran a trial with seven human participants to validate the system.

Leadership & Community Engagement

SEPTEMBER 2018

Computing Research Association–Women – *Grace Hopper Celebration Research Scholar*

Attended the 2018 Grace Hopper Celebration with a fellowship from the Computing Research Association-Women. Engaged with research-oriented events and programming.

SEPTEMBER 2017 - JUNE 2018
Stanford Vice Provost for Teaching and Learning – *Resident Computer Consultant*

Worked with a team of six undergraduates and two Resident Fellows to lead and manage a residence of over 80 first year students. Was responsible for all residential computing resources and spaces, and provided personal IT support for residents.

SEPTEMBER 2017 - JUNE 2018
VMWare Women's Leadership Innovation Lab; Stanford, CA – *Seeds of Change Mentor*

With a co-leader, mentored a group of seven local high-school girls interested in STEM, focusing on critical leadership skills and the gendered challenges facing women in STEM fields. Collected ethnographic data for the improvement of the pilot program.

Publications

Sabar Dasgupta*, **Samantha Robertson***, Bianca Yu, Stephen Spears, and Paul Nuyujukian. *An open-source platform for systems neuroscience.* In preparation.

Pavan Mehrotra*, Sabar Dasgupta*, **Samantha Robertson**, and Paul Nuyujukian. 2018. *An open-source realtime computational platform (short WIP paper).* In Proceedings of the 19th ACM SIGPLAN/SIGBED International Conference on Languages, Compilers, and Tools for Embedded Systems.

Presentations

Samantha Robertson, Sabar Dasgupta, and Paul Nuyujukian, October 2018. *Using LiCoRICE to Conduct Closed-Loop Neural Simulations with People* . Poster at Stanford Neurosciences Institute Symposium poster session.

Samantha Robertson, and Alison Marsden, August 2018. *A Graphical User Interface for Lumped Parameter Cardiovascular Modeling in SimVascular.* Poster at Stanford Bioengineering REU poster session.

Samantha Robertson, and Rohun Saxena, June 2018. *Automated Segmentation of Stroke-Induced Lesions.* Poster at CS 231N: Convolutional Neural Networks for Visual Recognition class project poster session.

Samantha Robertson, Sabar Dasgupta, and Paul Nuyujukian, August 2017. *Deploying Realtime Linux with Python for Applications in Systems Neuroscience.* Poster at Stanford Bioengineering REU and Stanford Bio-X Symposium poster sessions.