

Brian C. Schwedock

PH.D STUDENT

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Research Interests

My research interests lie in the intersection of hardware and software systems. My current project focuses on NUCA-aware cache partitioning for server workloads.

Research areas: computer architecture; computer systems.

Education

Carnegie Mellon University

PH.D STUDENT IN ELECTRICAL AND COMPUTER ENGINEERING

- *Advisor:* Nathan Beckmann
- Bertucci Fellowship 2017-2020

Pittsburgh, PA

2017 - Present

University of Southern California

B.S. IN COMPUTER ENGINEERING AND COMPUTER SCIENCE (SUMMA CUM LAUDE), MINOR IN MATHEMATICS

- Rose Hills Foundation Scholarship, Boeing Scholarship, Moore Scholarship, JFS-David Rubenstein Memorial Scholarship
- President of Eta Kappa Nu honor society, Upsilon chapter

Los Angeles, CA

2013 - 2017

Research Experience

Carnegie Mellon University

GRADUATE RESEARCH ASSISTANT

- Researching in computer architecture and computer systems.

Pittsburgh, PA

2017 - Present

USC Teamcore Research Group

UNDERGRADUATE RESEARCH ASSISTANT

- Developed and implemented a linear program for PAWS, a program deployed in Malaysia which solves a Stackelberg Security Game to combat poaching.
- Performed statistical analysis on crime data in Los Angeles.

Los Angeles, CA

Sep. 2015 - May 2017

Sami Shamoon College of Engineering

SOFTWARE ENGINEERING RESEARCH INTERN

- Developed image processing enhancements in support of a Civil Engineering research project.
- Researched improvements for methodologies of unit testing.

Be'er Sheva, Israel

June 2016 - Aug. 2016

Work Experience

Google

SOFTWARE ENGINEERING INTERN

- Member of the Storage team.
- Built a cache simulation infrastructure for an in-memory read-only cache. Simulation infrastructure included trace generation, simulator, and graph scripts.
- Investigated research areas in replacement policies, client isolation, and access pattern detection.

New York, NY

May 2018 - Aug. 2018

General Atomics Aeronautical Systems Inc.

SOFTWARE ENGINEERING INTERN

- Member of the Software Flight Controls group.
- Developed post-processing test scripts for UAV flight controls testing.
- Contributed to testing framework for UAV flight controls testing.

San Diego, CA

June 2017 - Aug. 2017

University of Southern California

UNDERGRADUATE TEACHING ASSISTANT

- Conducted office hours and graded homework assignments and tests for programming classes.

Los Angeles, CA

Spring 2015, 2016, 2017

ViaSat

SOFTWARE ENGINEERING INTERN

Carlsbad, CA

May 2015 - Aug. 2015

- Designed and built a testing infrastructure easily deployable in the cloud to test any software system through inconvenient testing.

Publications

- 2017 Fei Fang, Thanh H. Nguyen, Rob Pickles, Wai Y. Lam, Gopalasamy R. Clements, Bo An, Amandeep Singh, **Brian C. Schwedock**, Milind Tambe, Andrew Lemieux. PAWS – A Deployed Game-Theoretic Application to Combat Poaching. In AI Magazine, 38(1):23-36, 2017.

Skills

Programming C/C++, Python
HDL Verilog