Anne Farrell

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annefarrell

Education

University of Chicago **Chicago, IL**
Ph.D. student in Computer Science, Advisor: Henry Hoffmann *Sept 2014–June 2020 (expected)*
Thesis: Trading Accuracy for Overall System Performance in ML-For-Storage Solutions
Research interests: Self-aware computing, real-time scheduling, and resource management in mobile and embedded systems

University of Chicago **Chicago, IL**
M.S. Computer Science *Fall 2016*
Master's Thesis: MEANTIME: Achieving Both Minimal Energy and Timeliness with Approximate Computing

University of Wisconsin - Green Bay **Green Bay, WI**
B.S. Computer Science, Mathematics, GPA: 4.0/4.0 *2010–2014*
Summa Cum Laude, Honors in the Major (Computer Science)

Relevant Coursework

Power and Energy Aware Computing, Computer Architecture, Advanced Operating Systems, Discrete Mathematics, Algorithms, Introduction to Statistical Machine Learning

Industry Experience

Huawei Technologies **Santa Clara, CA**
Android System Intern *Sept–Dec 2016*
Conducted research on reducing energy consumption on Android

- Investigated tunable values in Android's modified Linux scheduler and their impact on power consumption and performance
- Automated setting scheduler parameters using Bash scripts

Technical Skills

Multi-Objective Optimization for Energy Consumption and Performance, Power and Performance Tradeoff Modeling, Android Development, Version Control (Git, SVN), Benchmarking, Control Theory

Programming Languages: Java, C/C++, Bash, AWK, Python

Operating Systems: Linux (Arch and Mint), Android

Research Projects

Energy efficiency and responsiveness in mobile systems

- Profiled power and performance of web browsing, photo viewing, and other tasks using MobileBench on Android
- Designed and implemented an Android application with a closed feedback loop controller to optimize power and performance of an active application

- Performed statistical data analysis of Android benchmark energy consumption

MEANTIME project

- Formulated mathematical model to meet hard real-time performance goals with minimal energy consumption using approximate computing
- Produced a first-author publication in USENIX ATC, a leading systems conference

Teaching Experience

Tutoring Services, University of Wisconsin - Green Bay **Green Bay, WI**
Physical Sciences Tutor *Sept 2011–May 2013*
Assisted students with math, physics, and computer science

Teaching Assistant:

- Introduction to Computer Science I - Fall 2017, Fall 2019, Winter 2020
- Parallel Computing - Winter 2018
- Introduction to Computer Systems - Spring 2018
- Inventing, Engineering and Understanding Interactive Devices - Spring 2019

Leadership Experience

University of Chicago **Chicago, IL**
DSAC Representative (Dean's Student Advisory Committee) *Jan 2018–present*
Served as a liason between computer science students and the Dean of the Physical Sciences Division

Artifice **Chicago, IL**
Volunteer *Sept 2015–June 2016*
Helped children build and program Arduino-powered robots

Publications

Anne Farrell and Henry Hoffmann. Meantime: Achieving both minimal energy and timeliness with approximate computing. In *2016 USENIX Annual Technical Conference (USENIX ATC 16)*, Denver, CO, 2016. USENIX Association.

Honors and Awards

CERES Outstanding Research Award 1st Year Graduate *Sept 2015*
Semester Highest Honors *2010-11, 2011-12, 2012-13, 2013-14*

Fellowships, Scholarships, and Grants

USENIX ATC '16 Grants for Women *June 2016*
GAANN Fellowship *2014-15, 2015-16, summer 2017*
Cornerstone Foundation of Northeastern Wisconsin, Inc. Annual Scholarship *2013-14*
Jack and Engrid Meng Scholarship *2012-13*
ST Paper, LLC Scholarship *2011-12, 2013-14*
Academic Excellence Scholarship - State *2010-11, 2011-12, 2012-13, 2013-14*

Founders Association Merit Scholarship *2010-11*