

Anne Farrell

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🌐 annefarrell

Education

University of Chicago

Chicago, IL

Ph.D. student in Computer Science, Advisor: Henry Hoffmann

2014–2020 (expected)

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

2011–2013

Assisted students with math, physics, and computer science

Teaching Assistant:

- Introduction to Computer Science I - Fall 2017
- Parallel Computing - Winter 2018
- Introduction to Computer Systems - Spring 2018

Leadership Experience

University of Chicago

Chicago, IL

DSAC Representative (Dean's Student Advisory Committee)

Jan 2018–present

Served as a liaison between computer science students and the Dean of the Physical Sciences Division

Artifice

Chicago, IL

Volunteer

2015–2016

Helped children build and program Arduino-powered robots

Publications

[1] 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