Eric Tang

erictang25.github.io

5 Sean Circle Billerica, MA 01821 Cell: (978) 437-7708 600 S. Negley Ave., Apt. A5
Pittsburgh, PA 15232

Email: erictang@andrew.cmu.edu

Education

Carnegie Mellon University

Ph.D. Electrical and Computer Engineering

Expected Dec 2025

Pittsburgh, PA

Ithaca, NY

Cornell University

Bachelor of Science, Electrical and Computer Engineering, Computer Science minor

Dean's List (all semesters), Magna Cum Laude

May 2020

Relevant Courses Complex Digital ASIC Design • Distributed Computing • Computer Architecture • Large Scale Machine Learning • Digital Communication

Awards and Honors

Dean's Fellow, Carnegie Institute of Technology Eta Kappa Nu (IEEE-HKN) Feb. 2020 Nov. 2018

Nov. 2018

Tau Beta Pi

Skills Program

Programming Languages: Verilog, C, C++, Matlab, Python, Java, PyMTL3

Tools: Git, Altium, Verilator, VCS, Primetime PX

Research Experience

Cornell University, Batten Research Group

Advisor: Prof. Christopher Batten

Aug. 2018 – May 2020

- Created 3 stage pipelined blocking cache generator parametrized by size of cache lines and total size.
- Designed a custom energy and power characterization flow that utilizes Synopsys EDA tools (Primetime PX) to find performance metrics for custom ASIC designs.
- Ran preliminary tests and created breakout board for computer architecture test chip (BRGTC1)

Cornell University, Computer Systems Laboratory

Advisor: Zhiru Zhang

Jun. 2017 – Aug. 2017

May 2019 – Aug. 2019

- Experimented with various forms of gradient descent on a GPU to filter spam emails more quickly.
- Implemented stochastic gradient descent using multiple threads with asynchronous updates in C

Professional Experience

MITRE, Bedford MA

Position Navigation and Timing Intern

- Identified spoofing in GPS signals from data collected during field tests.
- Created plots and maps to visualize various aspects of GPS signals

Draper Laboratory, Cambridge MA

May 2018 – Aug. 2018

Undergraduate Engineering Intern

- Designed new test procedures and soldered custom test circuits to verify proper sensor functionality.
- Automated tests utilizing oscilloscope, function generator, power sources and ammeters

Cornell University, College of Engineering

Teaching

Computer Architecture, ECE 4750

Aug. 2019 – Dec. 2019

Teaching Assistant

Graded labs, problem sets and quizzes and held weekly office hours

Digital Logic and Computer Organization, ECE 2300

Apr. 2019

Led exam review session for over 20 students

Multivariable Calculus, MATH 1920

Aug. 2017 – Dec. 2017

Academic Excellence Workshop Facilitator

Taught and created problem sets for a class of 15 students

Resistance Racing, Cornell University

Sep. 2017 – May 2020

Activities

Electrical Subteam Lead

- Designed and optimized an energy efficient BLDC motor controller using field-oriented control.
- Designed, populated, and tested a PCB for measuring power consumption (joulemeter).
- Tested and integrated battery management system, power converters, data acquisition, motor controller and automation systems onto the vehicle

Club Swimming, Cornell University

Sep. 2016 – May 2017