Eric Tang

erictang25.github.io

5 Sean Circle
Billerica, MA 01821
Cell: (978) 437-7708

601 S. Negley Ave., Apt. A-5
Pittsburgh, PA 15232
Email: erictang@andrew.cmu.edu

Education

Carnegie Mellon University — Pittsburgh, PA
Ph.D. Electrical and Computer Engineering — Expected May 2026

Cornell University — Ithaca, NY
Bachelor of Science, Electrical and Computer Engineering, Computer Science minor
GPA: 3.88/4.30, 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 — Feb. 2020
Eta Kappa Nu (IEEE-HKN) — Nov. 2018
Tau Beta Pi — Nov. 2018

Skills

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

- 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 — May 2019 – Aug. 2019
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

Teaching

Cornell University, College of Engineering
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

Activities

Resistance Racing, Cornell University Sep. 2017 – May 2020
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