ERIC ZHOU

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EXPERIENCE

Industry

Software Engineer at *Microsoft* *March 2020 - Present*

- Azure Networking's next generation layer 7 dataplane using Nginx on Linux.
- Writing spartan C code to be super-scale, light-weight and deterministic, designed to minimize bytes per cycle with extreme stability.

Software Engineer at *Microsoft* *May 2019 - March 2020*

- Performance optimizations in the partition layer of Azure Storage, which indexes all tables in the system.
- Gaining experience working with a large scale C++ development environment with a huge codebase.

VLSI Intern at *NVIDIA* *Summer 2018*

- Ran self-heating experiments with Cadence Voltus on an unreleased 7nm graphics card.
- Showed with simulated results that self-heating effects don't significantly impact the lifetime of the chip.

Software Development Engineer Intern at *Amazon* *Summer 2017*

- Developed an internal tool for Amazon Fresh enabling safe and quick updates to merchant schedules, which greatly increased the speed at which Fresh can launch in new regions.
- Wrote both AngularJS frontend and the Scala backend, which interfaces with other Fresh services.

Academia

NumPyWren at *RISELab* with Professor Jonathan Ragan-Kelley *Fall 2018*

- Enabled multicore machines running serverless functions to more closely approximate the efficient communication patterns of a traditional MPI cluster by caching data.
- Wrote a highly concurrent software cache in C++ that caches data from an object store like Amazon S3.

Robot Arm with *Professor Pieter Abbeel* *Fall 2017 - Spring 2018*

- Wrote drivers in C++ for devices on a microcontroller such as temperature sensor and watchdog timer.

Undergraduate Student Instructor for *CS162 (Operating Systems)* *Fall 2018 - Spring 2019*

- Other than typical TA responsibilities, I evaluated many student operating system design documents, identifying ideas that would lead to success while providing guidance for designs that needed work.

Projects

Operating System

- My own operating system for x86, started from scratch and written in C, created mainly for fun.

Grocery Split (Web Application)

- A web application built from the ground up in Go for uneven bill splitting.
- Features a web UI that allows each person to individually select items that they want to pay for.
- Parses digital receipts to gather data about purchases such as the price of each item.

SKILLS

Languages C++ • C • Python • Java • Go • Scala • Perl • Javascript • SQL • x86
Main Interests Distributed systems • Operating systems • Virtualization • Containers • Networking

EDUCATION

University of California, Berkeley *August 2015 - May 2019*
B.S. Electrical Engineering and Computer Sciences ***GPA** 3.95/4*
Honors Honors to Date • Dean's List • Eta Kappa Nu • Tau Beta Pi
Relevant Courses CS162 Operating Systems (A+) • CS262A Advanced Topics in Computer Systems • CS164 Programming Languages and Compilers • CS186 Databases • CS170 Algorithms • CS189 Machine Learning • CS161 Computer Security • EECS151 Digital Design and Integrated Circuits (A+) • EE140 Linear Integrated Circuits