# ERIC ZHOU

(805) 832-7323 • ericfzhou@berkeley.edu • zehric.github.io • linkedin.com/in/zehric

## EDUCATION

**University of California, Berkeley** *August 2015 - May 2019*
***B.S. Electrical Engineering and Computer Sciences*** ***GPA 3.94***
*Awards*: Honors to Date • Dean's List • Eta Kappa Nu
*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 • **CS184** Computer Graphics • **CS270** Combinatorial Algorithms • **EECS151** Digital Design and Integrated Circuits (A+) • **EE140** Linear Integrated Circuits

## EXPERIENCE

***Internships***

**VLSI Intern** at ***NVIDIA*** *Summer 2018*
- Ran self-heating experiments with Cadence Voltus on several blocks of an unreleased 7nm graphics card
- Showed with simulated results that self-heating effects do not significantly impact the lifetime of the chip

**Software Development Engineer Intern** at ***Amazon*** *Summer 2017*
- Developed an internal tool for Amazon Fresh that enables safe and quick updates to merchant schedules
- Wrote both the AngularJS frontend and the Scala backend, which interfaces with other Amazon services
- Greatly increased the speed at which Fresh can launch in new regions

**Software Engineer Intern** at ***Rently*** *Summer 2016*
- Enabled Rently Keyless smart home devices to be controlled with voice on the Amazon Echo
- Wrote a natural language parser in Node.js that processes an English command into JSON

***Research***

**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 such as Amazon S3

**Robot Arm** with **Professor Pieter Abbeel** *Fall 2017 - Spring 2018*
- Wrote drivers in C++ for devices on a microcontroller such as the temperature sensor and watchdog timer
- Improved serial messaging protocol to reduce number of messages sent between microcontrollers by 2x

***Teaching***

**Undergraduate Student Instructor** for ***CS162*** *(Operating Systems)* *Fall 2018 - Spring 2019*
- Evaluated a wide variety of student project design documents
- Identified ideas that would lead to success and provided guidance for designs that needed work

## PROJECTS

**Operating System** *Ongoing*
- My own operating system for x86, started from scratch and written in C, created mainly for fun
- Current goal is a simple monolithic kernel with preemptive multitasking and a text user interface

**Grocery Split** *Ongoing*
- A web server written in Go for uneven bill splitting
- Features a web UI that allows each person to individually select desired items
- Parses digital receipts to gather data about purchases such as the price of each item

## SKILLS

***Languages:*** C • Python • Java • Go • Scala • Perl • C++ • Javascript • SQL • x86 • Verilog
***Main Interests:*** Distributed systems • Operating systems • Networking