ERIC ZHOU

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github.com/zehric

SKILLS

Java, C, C++, Scala, Python, JavaScript, SQL, HTML/CSS, Bash, Scheme, MIPS, Cadence/SPICE

EDUCATION

August 2015 - May 2019 (Expected Graduation)
University of California Berkeley
B.S. Electrical Engineering and Computer Sciences
GPA 3.89
Relevant Courses:
CS61B (Data Structures and Algorithms) • **CS61C** (Machine Structures) • **CS70** (Discrete Mathematics) • **CS186** (Databases) • **CS170*** (Efficient Algorithms and Intractable Problems) • **CS161*** (Computer Security) • **EECS151*** (Digital Design) • **EE16AB** (Information Devices and Systems) • **EE105** (Microelectronic Devices and Circuits) • **EE140** (Linear Integrated Circuits)
* Currently enrolled

EXPERIENCE

Summer 2017
Software Development Engineer Intern
Amazon
I developed a web UI for Amazon Fresh internal usage that allows for safe and quick updates to merchant schedules. One of the impacts of this tool is that it increases the speed at which Fresh can launch in new regions. The application uses a Scala backend with an AngularJS frontend.

Summer 2016
Software Intern
Rently
I created support for controlling Rently Keyless smart home devices on the Amazon Echo. Due to the lack of native support in Alexa for smart home integration with locks, I ended up creating an Amazon Alexa Skill that forwards raw English text to my custom natural language parser, which processes the command and makes a RESTful call to Rently's servers, all done in Node.js.

PROJECTS

Course Projects

EE140 Final Project
The analog parts of a mixed-signal chip in 90nm process for embedded IOT applications, including an 8-bit successive-approximation analog to digital converter, a programmable gain amplifier, bandgap voltage reference and temperature sensor, and an analog multiplexor. Final design was simulated and tested in Cadence.

Text Editor
A fully functional text editor in Java. Features include automatic word wrap, open and save, vertical scrolling, changing font size, undo/redo, and more. In order to implement constant time insertion/deletion from anywhere in the document, I created a custom data structure that combines the constant time access of arrays and insertion/deletion of linked lists.

SIXT33N
Final project of the EE16 course series. It is a mobile robot on 3 wheels that moves around according to speech input. It uses the MSP430 Launchpad as its guts with some circuitry for driving the motor and sensing through a microphone. Voice recognition is implemented with PCA classification and straight driving with stable eigenvalue placement in closed loop negative feedback.

Personal Projects

AnimeCal
A Japanese television animation calendar desktop application. It is written in Node.js and uses the Electron framework. Pulls information from the AniList API, organizes it based on air time, and displays it to the user with a work-in-progress GUI.

Imperative-Compromise
A simple application that takes in natural language and outputs machine-readable JSON, created during my internship at Rently. It takes in an imperative sentence as a string, then parses it into JSON, which can then be forwarded to any arbitrary platform.