

# ZACHARY YIU

🏠 <http://zacharyyu.com>    **Bē** zacharyyu    **in** zacharyyu    **Q** zyu

## EXPERIENCE

- Present  
|  
June 2017    **PICOYUNE**  
Software Engineering Intern
- Single-handedly designed and developed all-new Android application to control the company's plasmonic mercury sensor over a Bluetooth connection. Following initial development, the application was implemented into the core product as the primary user interface to the sensor.
  - Maintain Android app and embedded sensor software and actively expand feature set.
- Present  
|  
April 2017    **UC BERKELEY STUDENT AFFAIRS I.T.**  
Unit Supervisor
- Conducted hiring process for technical support consultant team with a record-high 250+ applicants, including 50+ one-on-one interviews.
  - Led in-depth specialty topic trainings for a team of over 30 consultants, which correlated to a doubling of successful recorded hardware repairs over the previous year.
- Present  
|  
Feb 2017    **DIVERSATECH AT BERKELEY**  
Technology Consultant  
Fall 2017 Client: Smartex
- Developed an online chatbot service in collaboration with a team of developers and data analysts to meet the demand of agricultural information queries of farmers in West Bengal.
  - Led the integration of the Natural Language Processing portion of the stack using Google's Dialogflow platform.
- Aug 2016  
|  
May 2016    **NOVANI, LLC**  
Network Engineering Intern
- Configured, imaged, and installed client hardware from vendors including HP, Lenovo, EMC, Brocade, Sonicwall, WatchGuard, Ruckus, and Meraki
  - Stood in for media production client's I.T. administrator on prolonged leave, providing technical support and server administration for Windows and Mac users in a corporate environment.

## SELECTED PROJECTS

### BERKELEY MAPS API

- Built a map application in Java for rendering, rasterizing, and routing (Using A\* algorithm for optimization) within Berkeley.
- Implemented fully functional zoom and pan with QuadTree data structure
- Expanded application with auto-suggestions in location search using Trie data structure.

### BROKER WEB APPLICATION

- Developed web app at the CalHacks 4.0 Hackathon that crawls multiple news sources and extracts positive and negative sentiment from stock-related articles to analyze the market with a custom point system and graph visualization.
- Built front-end with HTML/CSS, and Javascript (jQuery framework)

## EDUCATION

### UNIVERSITY OF CALIFORNIA, BERKELEY

#### B.A. in Computer Science

Expected Graduation Date: May 2019

GPA: 3.36/4.0

#### Coursework

CS61A - Structure and Interpretation of Computer Programs  
CS61B - Data Structures  
CS61C - Machine Structures  
CS70 - Discrete Mathematics and Probability  
CS170 - Efficient Algorithms and Intractable Problems  
CS162 - Operating Systems  
CS161 - Computer Security  
CS198 - Web Design DeCal  
CS198 - iOS DeCal

## SKILLS

### LANGUAGES

Java	C	HTML/CSS
Python	RISC-V	JavaScript
Swift	Bash	LaTeX

### TOOLS

Android Studio	Atom	Adobe CC
IntelliJ	Sublime Text	Figma
Xcode	Vim	Sketch

### FRAMEWORKS

JUnit	jQuery	Hadoop
Firebase	Node.js	Spark

### DIGITAL FRIDGE iOS APPLICATION

- Developed iOS application in Swift that enables users to keep track of expiring items in their refrigerator in a detailed, ordered list.
- Utilized Google's Firebase framework to sync data and images between user accounts and devices.

### RISC-V COMPILER AND PROCESSOR

- Created a compiler in C that translates RISC-V assembly instructions to machine code.
- Implemented a fully-functional model of a 32-bit two-cycle processor and arithmetic logic unit in Logisim based on RISC-V that reads and executes the compiled assembly code.