ZACHARY P YIU

San Francisco, CA   www.zacharyyiu.com   zacharyyiu   zyiu

EDUCATION

UNIVERSITY OF CALIFORNIA, BERKELEY
B.A. in Computer Science
Expected Graduation Date: May 2019

Coursework
Computer Security, Database Systems, Efficient Algorithms and Intractable Problems Internet Architecture and Protocols, iOS, Operating Systems, Ruby on Rails, Web Design

LEADERSHIP

DIVERSATECH AT BERKELEY
Senior Developer   2017 - 2019

Led technical design and development of several software solution projects for a wide range of companies including Gap and Wikipedia.

UC BERKELEY STUDENT TECH SERVICES
Technical Support Supervisor   2017 - Present

Led team of 7 consultants to support network infrastructure, workstation deployment, and local machine issues across campus.

Created and conducted in-depth technical trainings for a team of 30+ technical support consultants, resulting in a 95% increase of successful hardware repairs over the previous year.

SKILLS

LANGUAGES
Java, Python, Ruby, Swift, Go, C, HTML5, CSS3, JavaScript, RISC-V, Bash

TOOLS
Android Studio, Xcode, Tableau, Adobe CC, Figma, Sketch

FRAMEWORKS
JUnit, jQuery, Node.js, React, Ruby on Rails, Flask, Firebase, Maven, Bootstrap, MySQL, PostgreSQL, Docker, AWS, Google Cloud Platform

EXPERIENCE

PIVOTAL SOFTWARE, INC.   May 2018 - Present
Operations Analyst Intern
- Automated capture of periodic Salesforce data snapshots for internal Sales Operation team utilizing a PostgreSQL database. Integrated with Tableau to create a live week-over-week visual analysis dashboard, resulting in upwards of 3 weekly-recurring saved hours of manual work.
- Utilized large international market datasets to analyze customer impact of end-of-life products within Agile CI/CD pipeline and created model to optimize international pricing strategy.

PICOYUNE   June 2017 - May 2018
Software Engineering Intern
- Designed and developed new Android application in Java to control the company's flagship mercury sensor and provide live onscreen updates over a Bluetooth connection. Resulted in application deployment into production as the primary interface to the sensor.
- Developed backend creating calibration and mercury sample analysis models in Python, resulting in an 8% increase in measurement accuracy.
- Implemented Bluetooth functionality and data-streaming architecture between backend and app client.

WIKIMEDIA FOUNDATION   February 2018 - May 2018
Software Engineer Contractor
- Developed an offline article aggregation web application in Flask and React for Wikipedia's New Readers Program, resulting in deployment into production for communities with limited internet access.
- Utilized Wikimedia APIs for custom search autocomplete feature.

SMARTEX   September 2017 - December 2017
Software Engineer Contractor
- Developed chatbot service to meet the demand of agricultural information queries of farmers in West Bengal.
- Integrated Google's Dialogflow for Natural Language Processing and trained machine learning model to recognize and respond to queries among various categories such as weather, location, and crop yield optimization.

PROJECTS

STOCK ANALYSIS WEB APP
- Developed stock market analysis web application in HTML, CSS, and JS at UC Berkeley's CalHacks 4.0 Hackathon.
- Implemented page crawling and sentiment analysis algorithm to parse positive and negative sentiment from a variety of finance publication articles to generate an optimized point value system.
- Implemented graph visualization using the D3 Javascript library.

PINTOS OPERATING SYSTEM
- Implemented multi-thread processing and synchronization using locks, semaphores, and monitors.
- Constructed user programs to allow for user-prompted process control system calls and file operation system calls.
- Developed filesystem using buffer cache and inode data structure utilizing multi-level pointers.