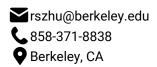
RICHARD S. ZHU





EDUCATION University of California, Berkeley

GPA 3.90

B.A. Computer Science

Relevant Coursework: Data Structures, Structure of Computer Programs, Linear Algebra & Circuits

EXPERIENCE

California PATH (Partners for Advanced Transportation Technology)

Berkeley, CA

Research Assistant, Human Factors Projects

Oct. 2019 - Present

- Evaluated potential safety impacts of the Caltrans-proposed "Yellow Alert" highway message system
- Helped conduct driving simulation experiments, monitoring subject distraction levels and behaviors
- Synced positional, sensor, and behavioral data collected from the simulation test trials
- Wrote Python scripts to extract key points from trial data sets, utilizing Python statistics libraries

Gateways Summer School

San Diego, CA

Teaching Assistant

Jul. 2018 - Aug. 2018

- Aided Architecture & Engineering teacher with giving lessons and explaining provided examples
- Guided 30 students on their projects and supervised them during break, learning, and work times

PROJECTS

Investment Portfolio Diversity Visualization Tool (Python)

- Won the BlackRock API Prize at Cal Hacks 6.0, the largest collegiate hackathon in the world
- Built a tool that visualizes the diversity of an investment portfolio given any applicable security attribute
- Leveraged BlackRock's API to compile, sort, and categorize security data from an array of stock symbols
- Integrated MatPlotLib to visualize calculated diversity data and to create a GUI for user portfolio input

Bomberman Remastered (Java)

- · Created an improved remake of the classic game Bomberman that runs on modern operating systems
- · Devised a completely original "competitive mode", featuring dynamic, real time multiplayer gameplay
- Utilized the Java Swing toolkit to design game menus, handle player controls, and execute game events

Personal Website (HTML, CSS, JavaScript)

- Designed and built a personal website from the ground up, utilizing the Bootstrap frontend framework
- Incorporated jQuery for site animations and the Google Fonts API for global typeface compatibility
- Hosted page files remotely on UC Berkeley Open Computing Facility servers, via SSH File Transfer

Scheme Language Interpreter (Python)

- Constructed an interpreter for the Scheme programming language (a dialect of Lisp)
- Implemented environments, lexical and dynamic scoping, exceptions, macros, and special forms

Smart Typing Practice Program (Python)

- Developed interactive typing program that calculates typing speed and accuracy with every keystroke
- Programmed smart autocorrect feature that determines similarity between input and a base word

ACTIVITIES

Catalyst for Success

San Diego, CA

Treasurer, Senior Technology Mentor

Sep. 2017 - Aug. 2019

- Taught programming and circuitry at the library to over 200 students (Python, Javascript, Arduino)
- · Worked with library officials to organize regular weekly workshops and week-long summer camps

AWARDS

Winner, CalHacks 6.0 BlackRock API Prize

Oct. 2019

Computer Science Scholar, Intuit Scholarship Program
Computer Science Scholar, Intuit George A. Hansen Program
Champion, SoCal Developmental Soccer League Div. 1

Apr. 2019 Dec. 2018

Apr. 2019

SKILLS

Languages: Python, Java, SQL, HTML/CSS, JavaScript

Frameworks/Technologies: Git, Unix, Bootstrap, NumPy, MATLAB