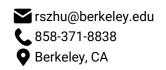
RICHARD S. ZHU





Expected Graduation: May 2023

EDUCATION University of California, Berkeley

B.A. Computer Science

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

PROJECTS

Investment Portfolio Diversity Visualization Tool (Python, MatPlotLib, Git)

- ★ Winning Project of the CalHacks 2019 BlackRock API Prize
- A tool that visualizes the diversity of an investment portfolio given any applicable security attribute
- Leveraged BlackRock 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, Git)

- · An improved remake of the classic video game Bomberman that can be played on modern devices
- · Added an all-new local multiplayer mode, featuring dynamic player vs. player gameplay
- Utilized the Java Swing toolkit to design game menus and update graphical textures

Personal Website (HTML, CSS, JavaScript)

- A personal website created from the ground up, built with the Bootstrap framework
- · Hosted page files remotely on UC Berkeley Open Computing Facility servers, via SSH File Transfer

Scheme Language Interpreter (Python)

- · An interpreter for the Scheme programming language (a dialect of Lisp), written in Python
- Implemented environments, lexical and dynamic scoping, exceptions, macros, special forms, and more

Smart Typing Practice Program (Python)

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

EXPERIENCE

California PATH Lab (Partners for Advanced Transportation Technology)

Berkeley, CA

Research Assistant

Nov. 2018 – Present

- Helped conduct research on the Caltrans-proposed "Yellow Alert" intelligent transportation system
- Synced positional, sensor, and behavioral data collected from driving simulation test trials
- Analyzed trial datasets using Python, SciPy, NumPy, and Pandas

Gateways Summer School

San Diego, CA

Teaching Aide

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

ACTIVITIES

Catalyst for Success

San Diego, CA

Sep. 2017 — Aug. 2019

Treasurer, Senior Technology Mentor

Taught programming and circuitry at the library to over 200 students (Python, Javascript, Arduino)

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- · Worked with library officials to organize regular weekly workshops and week-long summer camps

SKILLS

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

Frameworks/Technologies: Git, Linux (Ubuntu), Bootstrap, NumPy, Jupyter Notebooks, MATLAB

AWARDS

CalHacks 2019 - BlackRock API Prize Winner

Oct. 2019

Intuit Scholarship Program — Computer Science Scholar

Apr. 2019 Apr. 2019

Intuit George A. Hansen Program — Computer Science Scholar

Dec. 2018

Southern California Developmental Soccer League — Div. 1 Champion