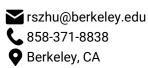
# RICHARD S. ZHU





**Expected Graduation:** May 2023

**EDUCATION** University of California, Berkeley

B.A. Computer Science

Relevant Coursework: Structure of Computer Programs, Information Devices and Systems

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

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

**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
- Fully recreated core gameplay functionalities, such as player action timers and random power-up drops
- Added an all-new local multiplayer mode, including dynamic player vs. player gameplay
- Utilized the Java Swing toolkit to design game menus and update graphical textures

### Scheme Language Interpreter (Python)

- An interpreter for the Scheme programming language (a dialect of Lisp), built using Python
- Implemented environments, lexical and dynamic scoping, exceptions, macros, special forms, and more
- · Ensured correct recursive evaluation procedures for call expressions, special forms, and primitives

## Personal Website (HTML, CSS, JavaScript)

- · Created a personal website from the ground up, adhering to a planned design blueprint
- Utilized the Bootstrap framework to organize page layout and specify element styling

#### **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**

# **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

**Online Clothing Page** 

**San Diego, CA** *Jan. 2018 — May 2019* 

Self Employed

Sold, packaged, and shipped clothing, cosmetics, books, and other items online

Completed over 85 transactions, totalling a revenue of \$2,237.35

#### **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** 

CalHacks 2019 — BlackRock API Prize Winner

Intuit Scholarship Program — Computer Science Scholar

Intuit George A. Hansen Program — Computer Science Scholar

**Southern California Developmental Soccer League** — Division 1 Champion