

RICHARD S. ZHU

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EDUCATION	University of California, Berkeley B.A. Computer Science <i>Relevant Coursework:</i> Structure of Computer Programs, Linear Algebra & Circuits	Expected Graduation: May 2023
PROJECTS	Investment Portfolio Diversity Visualization Tool (Python, Matplotlib, Git) <ul style="list-style-type: none">✦ <u>Winning Project of the CalHacks 2019 BlackRock API Prize</u>• 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) <ul style="list-style-type: none">• 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) <ul style="list-style-type: none">• 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) <ul style="list-style-type: none">• 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) <ul style="list-style-type: none">• 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) <i>Research Assistant</i> <ul style="list-style-type: none">• 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, and NumPy Gateways Summer School <i>Teaching Aide</i> <ul style="list-style-type: none">• 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	Berkeley, CA Nov. 2018 – Present San Diego, CA Jul. 2018 – Aug. 2018
ACTIVITIES	Catalyst for Success <i>Treasurer, Senior Technology Mentor</i> <ul style="list-style-type: none">• 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	San Diego, CA Sep. 2017 – Aug. 2019
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 Intuit Scholarship Program – Computer Science Scholar Intuit George A. Hansen Program – Computer Science Scholar Southern California Developmental Soccer League – Div. 1 Champion	Oct. 2019 Apr. 2019 Apr. 2019 Dec. 2018