

# RICHARD S. ZHU

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EDUCATION	<b>University of California, Berkeley</b> B.A. Computer Science <i>Relevant Coursework:</i> Structure of Computer Programs, Linear Algebra & Circuits	<b>Expected Graduation:</b> May 2023
SKILLS	<b>Languages:</b> Python, Java, SQL, HTML/CSS, JavaScript <b>Frameworks/Technologies:</b> Git, Unix, Bootstrap, NumPy, MATLAB	
PROJECTS	<b>Investment Portfolio Diversity Visualization Tool (Python, Matplotlib, Git)</b> <ul style="list-style-type: none"><li>🌟 <u>Winning Project of the CalHacks 2019 BlackRock API Prize</u></li><li>A tool that visualizes the diversity of an investment portfolio given any applicable security attribute</li><li>Leveraged BlackRock API to compile, sort, and categorize security data from an array of stock symbols</li><li>Integrated Matplotlib to visualize calculated diversity data and to create a GUI for user portfolio input</li></ul> <b>Bomberman Remastered (Java, Git)</b> <ul style="list-style-type: none"><li>An improved remake of the classic video game Bomberman that can be played on modern devices</li><li>Added an all-new local multiplayer mode, featuring dynamic player vs. player gameplay</li><li>Utilized the Java Swing toolkit to design game menus and update graphical textures</li></ul> <b>Personal Website (HTML, CSS, JavaScript)</b> <ul style="list-style-type: none"><li>A personal website created from the ground up, built with the Bootstrap framework</li><li>Hosted page files remotely on UC Berkeley Open Computing Facility servers, via SSH File Transfer</li></ul> <b>Scheme Language Interpreter (Python)</b> <ul style="list-style-type: none"><li>An interpreter for the Scheme programming language (a dialect of Lisp), written in Python</li><li>Implemented environments, lexical and dynamic scoping, exceptions, macros, and special forms</li></ul> <b>Smart Typing Practice Program (Python)</b> <ul style="list-style-type: none"><li>An interactive typing program that calculates typing speed and accuracy with every keystroke</li><li>Built smart autocorrect feature that determines similarity between input and a base word</li></ul>	
EXPERIENCE	<b>California PATH Lab (Partners for Advanced Transportation Technology)</b> <i>Research Assistant</i>	<b>Berkeley, CA</b> Nov. 2018 – Present
	<ul style="list-style-type: none"><li>Evaluated effectiveness of the Caltrans-proposed “Yellow Alert” intelligent transportation system</li><li>Synced positional, sensor, and behavioral data collected from driving simulation test trials</li><li>Wrote Python scripts to analyze trial datasets, utilizing SciPy, NumPy, and Pandas</li></ul>	
	<b>Gateways Summer School</b> <i>Teaching Aide</i>	<b>San Diego, CA</b> Jul. 2018 – Aug. 2018
	<ul style="list-style-type: none"><li>Aided Architecture &amp; Engineering teacher with giving lessons and explaining provided examples</li><li>Guided 30 students on their projects and supervised them during break, learning, and work times</li></ul>	
ACTIVITIES	<b>Catalyst for Success</b> <i>Treasurer, Senior Technology Mentor</i>	<b>San Diego, CA</b> Sep. 2017 – Aug. 2019
	<ul style="list-style-type: none"><li>Taught programming and circuitry at the library to over 200 students (Python, Javascript, Arduino)</li><li>Worked with library officials to organize regular weekly workshops and week-long summer camps</li></ul>	
AWARDS	<b>CalHacks 2019</b> – BlackRock API Prize Winner	Oct. 2019
	<b>Intuit Scholarship Program</b> – Computer Science Scholar	Apr. 2019
	<b>Intuit George A. Hansen Program</b> – Computer Science Scholar	Apr. 2019
	<b>Southern California Developmental Soccer League</b> – Div. 1 Champion	Dec. 2018