



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 GPA: 3.76
PROJECTS	Investment Portfolio Diversity Visualization Tool (Python) <ul style="list-style-type: none">🏆 Won the BlackRock API Prize at CalHacks 6.0, the largest collegiate hackathon in the worldBuilt a tool that visualizes the diversity of an investment portfolio given any applicable security attributeLeveraged BlackRock's API to compile, sort, and categorize security data from an array of stock symbolsIntegrated Matplotlib to visualize calculated diversity data and to create a GUI for user portfolio input Bomberman Remastered (Java) <ul style="list-style-type: none">Created an improved remake of the classic game Bomberman that runs on modern operating systemsDevised a completely original "competitive mode", featuring dynamic, real time multiplayer gameplayUtilized the Java Swing toolkit to design game menus, handle player controls, and execute game events Personal Website (HTML, CSS, JavaScript) <ul style="list-style-type: none">Designed and built a personal website from the ground up, utilizing the Bootstrap frontend frameworkIncorporated jQuery for site animations and the Google Fonts API for global typeface compatibilityHosted page files remotely on UC Berkeley Open Computing Facility servers, via SSH File Transfer Scheme Language Interpreter (Python) <ul style="list-style-type: none">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) <ul style="list-style-type: none">Developed interactive typing program that calculates typing speed and accuracy with every keystrokeProgrammed smart autocorrect feature that determines similarity between input and a base word	
EXPERIENCE	California PATH (Partners for Advanced Transportation Technology) <i>Research Assistant</i> <ul style="list-style-type: none">Evaluated effectiveness of the Caltrans-proposed "Yellow Alert" intelligent transportation systemSynced positional, sensor, and behavioral data collected from driving simulation test trialsWrote Python scripts to automate trial data analysis, utilizing SciPy, NumPy, and H5Py	Berkeley, CA Oct. 2019 – Present
	Gateways Summer School <i>Teaching Assistant</i> <ul style="list-style-type: none">Aided Architecture & Engineering teacher with giving lessons and explaining provided examplesGuided 30 students on their projects and supervised them during break, learning, and work times	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
AWARDS	CalHacks 6.0 – BlackRock API Prize Winner Intuit Scholarship Program – Computer Science Scholar Intuit George A. Hansen Program – Computer Science Scholar SoCal Developmental Soccer League – Div. 1 Champion	Oct. 2019 Apr. 2019 Apr. 2019 Dec. 2018
SKILLS	Languages: Python, Java, SQL, HTML/CSS, JavaScript Frameworks/Technologies: Git, Unix, Bootstrap, NumPy, MATLAB	