

RICHARD S. ZHU

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EDUCATION	University of California, Berkeley B.A. Computer Science <i>Relevant Coursework:</i> Data Structures, Structure of Computer Programs, Linear Algebra & Circuits	GPA 3.90
EXPERIENCE	California PATH (Partners for Advanced Transportation Technology) <i>Research Assistant, Human Factors Projects</i> <ul style="list-style-type: none">Helped evaluate potential safety impacts of the Caltrans-proposed "Yellow Alert" highway message system by automating portions of the data collection and analysis processSynced positional, sensor, and behavioral data collected from driving simulation experimentsWrote Python scripts to extract key points from trial data sets, utilizing Python statistics librariesWorked with thousands of data points from over 40 unique driver trials	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
PROJECTS	Investment Portfolio Diversity Visualizer (Python) <ul style="list-style-type: none"><u>Won the BlackRock API Prize at Cal Hacks 6.0</u>, the largest collegiate hackathon in the worldBuilt a tool that helps users gain insight into the diversity of an investment portfolio in relation to any applicable security data attribute (e.g., sector, asset type, or country)Leveraged BlackRock's API to compile, sort, and categorize security data from a set of stock tickersIntegrated Matplotlib to visualize calculated diversity data and to create a GUI for portfolio input Bomberman Remastered (Java) <ul style="list-style-type: none">Created an improved remake of the game Bomberman that runs on modern operating systemsDevised a completely new and original "competitive mode", featuring dynamic multiplayer gameplayUtilized the Java Swing toolkit to design game menus, handle controls, and execute game eventsPlayed extensively by friends and voted in the top 3 when presented at a school project fair Personal Website (HTML, CSS, JavaScript) <ul style="list-style-type: none">Designed and built a personal website from scratch, utilizing the Bootstrap front end 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 typing program that calculates typing speed and accuracy with every keystrokeProgrammed smart autocorrect feature that determines similarity between input and a base word	
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	Winner , CalHacks 6.0 BlackRock API Prize Computer Science Scholar , Intuit Scholarship Program Computer Science Scholar , Intuit George A. Hansen Program Champion , SoCal Developmental Soccer League Div. 1	Oct. 2019 Apr. 2019 Apr. 2019 Dec. 2018
SKILLS	Languages: Python, Java, SQL, HTML/CSS, JavaScript Frameworks/Technologies: Git, Unix, Bootstrap, NumPy, MATLAB	