

RICHARD S. ZHU

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EDUCATION	University of California, Berkeley B.A. Computer Science <i>Relevant Coursework:</i> Structure of Computer Programs, Information Devices and Systems	Expected Graduation: May 2023
SKILLS	Languages: Python, Java, SQL, HTML/CSS Frameworks/Technologies: Git, Linux (Ubuntu), Android, NumPy	
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 attributeLeveraged BlackRock 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, Git) <ul style="list-style-type: none">An improved remake of the classic video game Bomberman that can be played on modern devicesFully recreated core gameplay functionalities, such as player action timers and random power-up dropsAdded an all-new local multiplayer mode, including dynamic player vs. player gameplayUtilized the Java Swing toolkit to design game menus and update graphical textures Scheme Language Interpreter (Python, Lisp) <ul style="list-style-type: none">An interpreter for the Scheme programming language (a dialect of Lisp), built using PythonImplemented environments, lexical and dynamic scoping, exceptions, macros, special forms, and moreEnsured correct recursive evaluation procedures for call expressions, special forms, and primitives Smart Typing Practice Program (Python) <ul style="list-style-type: none">An interactive typing program that calculates typing speed and accuracy with every keystrokeBuilt smart autocorrect feature that determines similarity between input and a base wordSet up communication of clientside information to game servers for multiplayer "racing" integration Final Grade Calculator (Python) <ul style="list-style-type: none">A final grade calculator script, for grading systems where the final exam isn't in a separate categoryFormulated algorithm to compute a needed exam score based off of a user's desired class grade	
EXPERIENCE	Gateways Summer School <i>Teaching Aide</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 Online Clothing Page <i>Self Employed</i> <ul style="list-style-type: none">Sold, packaged, and shipped clothing, cosmetics, books, and other items onlineCompleted over 85 transactions, totalling a revenue of \$2,237.35	San Diego, CA <i>Jul. 2018 – Aug. 2018</i> San Diego, CA <i>Jan. 2018 – May 2019</i>
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 <i>Sep. 2017 – Aug. 2019</i>
OTHER	Awards <ul style="list-style-type: none">CalHacks 2019 - BlackRock API PrizeIntuit George A. Hansen Computer Science ScholarSouthern California Developmental Soccer League Div. 1 Champion	