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EDUCATION University of California, Berkeley

B.A. Computer Science, GPA 3.90

Coursework: Data Structures & Algorithms, Structure of Computer Programs, Linear Algebra & Circuits

EXPERIENCE California PATH (Partners for Advanced Transportation Technology)

Berkeley, CA

Research Assistant

Oct. 2019 — Feb. 2020

- Helped evaluate potential safety impacts of the Caltrans-proposed "Yellow Alert" highway message system by automating portions of the data collection and analysis process
- Synced positional, sensor, and behavioral data collected from driving simulation experiments
- Wrote Python scripts to extract key points from trial data sets, utilizing Python statistics libraries
- Worked with thousands of data points from over 40 unique driver trials

UC Berkeley College of Engineering

Berkeley, CA

Academic Intern

Jan. 2020 — Present

- Helped run lab sections for The Structure and Interpretation of Computer Programs (CS 61A)
- Taught fundamental computer science concepts to a section of 30 students
- Assisted students with understanding, writing, and debugging lab programming assignments

PROJECTS Investment Portfolio Diversity Visualizer (Python)

- Won the BlackRock API Prize at Cal Hacks 6.0, the largest collegiate hackathon in the world
- Built 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 tickers
- Integrated Matplotlib to visualize calculated diversity data and to create a GUI for portfolio input

Bomberman Remastered (Java)

- Created an improved remake of the game Bomberman that runs on modern operating systems
- Devised a completely new and original "competitive mode", featuring dynamic multiplayer gameplay
- Utilized the Java Swing toolkit to design game menus, handle controls, and execute game events
- Played extensively by peers and voted in the top 3 when presented at a school project fair

Personal Website (HTML, CSS, JavaScript)

- Designed and built a personal website from scratch, utilizing the Bootstrap front end framework
- Ensured readability and font compatibility regardless of operating system, display size, or browser
- Hosted page files remotely on UC Berkeley Open Computing Facility servers, via SSH File Transfer

Scheme Language Interpreter (Python)

- Constructed an interpreter for the Scheme functional programming language (a dialect of Lisp)
- Detailed correct evaluation procedures for exceptions, macros, and short-circuiting special forms
- Optimized memory by implementing tail recursion, environments, and lexical/dynamic scoping

ACTIVITIES Catalyst for Success

San Diego, CA

Treasurer, Senior Technology Mentor

Sep. 2017 — Aug. 2019

- 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

AWARDS Winner, CalHacks 6.0 BlackRock API Prize

Oct. 2019

Computer Science Scholar, Intuit Scholarship Program

Apr. 2019

Computer Science Scholar, Intuit George A. Hansen Program

Apr. 2019

Champion, Southern California Developmental Soccer League Div. 1

Dec. 2018

SKILLS Languages: Python, Java, SQL, HTML/CSS, JavaScript

Frameworks/Technologies: Git, Unix, Bootstrap, NumPy, MATLAB