Garvin Mo Zhen

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Education

- **University of California, San Diego** — La Jolla, CA
  B.S. Cognitive Science w/ specialization in Machine Learning — *Sep 2018 - June 2022*
  Minor Computer Science
  GPA: 3.44

  Relevant Coursework: Advanced Data Structures, Algorithms and System Analysis, Design and Analysis of Algorithms, Computer Organization and System Programming, Linear Algebra, Vector Calculus, Intro to Probability, Data Science in Practice, Supervised Machine Learning Algorithms, Software Engineering

Experience

- **Boffin AI** — San Francisco, CA (*remote*)
  Full Stack Developer Intern — *Sep 2020 – Dec 2020*
  - Developed a web application to integrate Big Commerce's API that assists E-commerce merchants in accessing and managing the company's services.
  - Incorporated REST functions to fetch/write data to MongoDB database and data would be displayed onto React page.
  - Designed front-end user interface using React Bootstrap
  - Technologies used: Node.js, Docker, Git, MongoDB, React.js, React Bootstrap, Mocha/Chai

Projects

- **Robinhood Watchlist Scanner**
  - Wrote a program in Python that scanned through all the stock symbols in a given watchlist from a robinhood brokerage account.
  - Pulled data of stock prices using an open-source API and manually calculated the RSI (relative strength index) for each stock symbol to indicate whether a stock was overbought or oversold.
  - Calculated RSI value manually using Google Spreadsheets to ensure correct calculation.
- **Traffic Collision Analysis**
  - Data Science project that combined multiple datasets to analyze the effect of COVID-19 cases on traffic collisions in New York City.
  - Performed descriptive/exploratory data analysis and used techniques such visualizing data to observe distributions, log transformations, and linear regression modeling.
  - Created a simple linear regression model to show a negative correlation between the number of daily traffic collisions and the number of daily cases.
- **File Compressor**
  - Program written in C++ that is able to compress a given file and decompress the output file back to the original file with no differences between the files.
  - File encoded using Huffman Ecoding algorithm and used bitwise operations to store and read file bit by bit.
- **Minesweeper**
  - Recreated the original game of Minesweeper using JavaScript, with same functionalities such as being able to flag boxes and clicking on a box. Game displayed on a page using HTML and CSS.

Technical Skills & Interests

- **Programming Languages**: Java, Python, C/C++, JavaScript, MATLAB, Assembly, LaTeX
- **Frameworks/Libaries/Tools**: Node.js, React, React BootStrap, MongoDB, Pandas, Matplotlib, Numpy, Docker, Jupyter Notebook, Git/Github, Unix/Linux, Google Spreadsheet
- **Languages**: Spanish(fluent), Cantonese(fluent)
- **Interests**: volleyball, stocks/options trading, thrifting, traveling, eating food