AVI GARG

🌐 www.avigarg.me
✉ avigarg@berkeley.edu
in www.linkedin.com/in/avi-
garg www.github.com/gargavi

EDUCATION

University of California, Berkeley (Triple Major) | **May 2022**

B.A Statistics | **4.00**
B.A Computer Science | **4.00**
B.A Economics | **3.86**

CS61C: Computer Architecture Teacher Assistant
CS 70: Algorithms and Probability Tutor (Private)
Stat 135: Concepts of Statistics Teacher Assistant

Coursework:
Computer Architecture, Neural Networks, Concepts of Statistics, Financial Economics, Computer Security, Advanced Probability, Stochastic Processes, Efficient Algorithms and Intractable Programs,

EXPERIENCE

Plaid | Software Engineer   **New York City, NY | May 2022 - Present**
- Worked in React and goLang to build and maintain a new user dashboard for end users to consume Plaid products
- Fine tuned OpenAI LLM's for a universal search engine, and analyzed user action/traffic for UX/UI improvements

Citadel Securities | Systematic Intern   **Chicago, IL | May 2021 - Aug 2021**
- Designed and built pipelines for the Fixed Income and Equities desk, working primarily in Python and Linux
- Used survival analysis and regression models to systematically solve a variety of non trivial problems (N.D.A)

Microsoft | Applied Statistics and Data Science Intern   **| May 2020 - Aug 2020**
- Developed and deployed NLP models, as a part of the WorldWide Learning Team, utilzing Azure ML Studio and Docker
- Helped to build a pipeline to train and ingest an ensemble of NLP models aimed at Entity Extraction

Escape-It | Founder   **San Ramon, CA | April 2020 - Prersent**
- Designed, built, and marketed personalized virtual escape rooms to student clubs, companies, and organizations globally
- Reached a total of nearly 100,000 users, with secured contracts up to $1500, including clubs at NYU, UBC, Berkeley
- Stack Includes: **React, Express, MongoDB, Redux, React-Router, inside of a Node-JS application**

HilightAi | Software Engineering Intern   **San Jose, CA | Aug 2019 - Jan 2020**
- Improved Convolutional Neural Networks developed in MXNet to increase accuracy of tracking sports players throughout games
- Designed new hardware methods to further improve tracking of dynamic players and reduce obfuscations

CyberCube | Software Engineering Intern   **San Francisco, CA | May 2019 -Aug 2019**
- Implemented an **affinity propagation algorithm to reduce database redundancies** and increasing API call efficiency
- **Deployed pipeline on an Amazon EMR cluster**, utilizing PySpark to peform cleanup in feasible timeframe
- Explored other techniques, including fuzzy logic and NLP, and performed cost and accuracy analysis

RESEARCH

Haas School of Business   **Jan 2021 - Present**
- Performed before and after analysis on the presence of wealth and influence of politics on the landed and financial wealth

U.C Berkeley Economics Department   **May 2020 - Present**
- Scraped historical online census records to understand social mobility on welfare recipients and long term familial impact
- Geocoded addresses and analyzed impact of political influential neighbors on the probability of government employment

Naval Postgraduate School   **Jun 2017 - Mar 2018**
- Analyzed synthetic terrorist networks to glean insights about key players and connectivity across the graph
- Utilized Python and Gephi to analze approximately 1,000,000 connection across 3 thousand nodes

PROJECTS

Stock Market Analysis   **April 2019 - Present**
- Created a Recurrent Neural Network, combined with a pre-trained ELECTRA NLP model to predict momentum based movements in the stock market based on news
- Trained on limited data, but working on adversial training to increase the efficacy of the training sets and increase robustness

Spotify Analysis   **Dec 2018 - Present**
- Developed various models, **including Random Forest Classifier, Simple Neural Network, and Multilabel Linear Regression**, to continuously train and sort a user's Spotify Song library into playlists
- Ingested model endpoint deployed on Azure ML Studio into a Flask Application, with a simple React front-end

SKILLS

Technical   **Python** (Scikit-learn, PyTorch, Pandas, MatPlotLib, SQLAlchemy), **Javascript** (React, Express, Socket), **Scala**, **HTML/CSS**, **SQL**, **C, C+, AWS** (Sagemaker, ERM, EC2, Glue), **Azure (ML Studio, Virtual Machines)**

Other   Cooking, Obstacle Courses, Video Editing, Avid Playlist Creator, Puzzle Enthusiast, Spikeball