FRANKLIN CHIAN STUDENT AT UC BERKELEY

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EDUCATION

UC Berkeley June 2021
B.S. Electrical Engineering and Computer Science
Data Science and Linguistics Minor
-Awards: Regent's and Chancellor's Scholar(Awarded to <1% of new students)
-3.67 GPA
-Relevant Coursework: Data Structures, Designing Information Devices and Systems, Discrete Math and Probability, Structure of Computer Programs, Foundations of Data Science, Algorithms, Advanced Programming in R, Web Design

PROJECTS

Codenames AI - Calhacks 2019 Oct. 2019
- Created a Codenames word guessing bot based off of the popular board game with machine learning with code giving and guessing capabilities.
- Utilized Google Word2Vec, Jupyter Notebook, and tkinter packages to create complete game with working GUI.
- Logic established by correlating positive words(your team's words) against negative words(enemy words), and calculated to an optimized threshold.
- Based off of the correlation scores, bot gives out a clue for 3 or less words. Objective is to maximize number of guesses while minimizing risk.
- AI Bot also has "Agent" guessing capabilities, and takes in a user clue and correlates with the "x" closest correlated words.

Data Scraping for Sports Projections Oct. 2019 - Current
- Working on collecting database of NBA and NFL information to create a projection model. Used Beautiful Soup and iPython to parse information from websites and pass into CSV files.
- Projection model will be based off of information using key metrics, trends, and external factors. Will be used for future DFS and other sports betting applications.
- Combines data cross referenced with projected over-under totals from sportsbooks to establish trends over years of data.

DFS Sports Betting Modeling July 2019 - Current
- Researched models for upcoming DFS football season, involving lineup optimization and utilizing online player projection models based on MIT research paper.
- Using Julia language and Gurobi solver to create lineups taking into account lineup constraints like positions, maximum players per team, maximizing based off of high correlation pairs.
- Experienced over 300% ROI on microstakes tournaments so far.

BearMaps Feb. 2019
- Built a map rasterizer of Berkeley area restaurants and streets with autocomplete and search features.
- Utilized Hashmap and Tries to store and find data efficiently from points given on a map.
- Added features to scroll through map and view different restaurants and ratings.
- Used K-dimensional tree to represent points to compute closest points and distances.

Classifying Movies Apr. 2019
- Used K-means algorithm in Jupyter Notebook to classify movies. Trained a test set based on 8 categories, then predicted genre of a movie based on word frequencies in data that show up in movies of a particular genre.
- Used closest points and classified based on nearest neighbors to predict results.

EXPERIENCE

Hydroflask | CMG Strategy Consulting, *Contract Consultant*, UC Berkeley Sept. 2019 - Current
- Working with Hydroflask to understand and explain the immense success in the market sector of high school and college students for their products. Conducted surveys, focus groups, and other metrics to understand key reasons why Hydroflask succeeds.
- Conducted market research and other metrics as well as providing recommendations for moving forward.
- Researched major competitors and differentiated major factors associated between Hydroflask and competitors.

Data Structures Course Staff(CS61BL), *Academic Intern*, UC Berkeley June 2019 - Aug. 2019
- Taught and helped students twice a week as a lab TA through projects involving data structures and algorithms such as Dijkstra's, Depth First Search, Binary Tree operations, and sorting.
- Provided debugging support and tutoring for students

SKILLS

PROGRAMMING TOOLS: Java, C++, Python, JavaScript, Lisp, SQL, React, R, Excel, HTML, Optimization, Machine Learning
LANGUAGES: English, Chinese, Spanish
INTERESTS: Chess, Poker, Board Games, Asian American Culture, Basketball, Bridge, Football, Sports Analytics