Jack Palaia

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Education

Georgia Institute of Technology, Atlanta, GA *August 2019 – May 2023 (expected)*
B.S. in **Computer Science**, GPA: **4.0/4.0**
Coursework: CS 1332 – Data Structures and Algorithms, CS 2050 – Discrete Math, CS 2340 – Objects and Design

Skills

Concepts: Machine Learning, NLP, full-stack web development (MERN stack)
Languages: Python (Pandas, NumPy, Scikit-learn, NLTK, etc.), JavaScript, Java, C++, SQL, HTML, CSS
Frameworks/Technologies: Node, React/Redux, Express, Django, Git, REST, Linux (Ubuntu), MongoDB, Docker, Jest

Experience

Georgia Tech Foundation, Atlanta, GA | **Quantitative Investments Intern** *August 2020 – Present*
- Constructed sentiment analysis platform for evaluating positive/negative sentiment on various financial markets
- Utilized deep learning and NLP techniques such as neural networks and word embeddings to create and train a sentiment classifier that correctly classifiers bullish/bearish sentiment
- Developed data pipeline that scrapes websites, emails, and PDFs for text data, feeds the data through the sentiment classifier, and visualizes the data using Matplotlib and Seaborn libraries

Georgia Tech Student Foundation, Atlanta, GA | **Quantitative Analyst** *December 2019 – Present*
- Developed stock trading backtester in Python for testing stock trading strategies with team
- Researched and implemented stock trading strategies utilizing price and volume data for stocks and options

Adventure Code Academy, Chelmsford, MA | **Mentor** *April 2018 – August 2018*
- Designed and implemented introductory programming curriculum for students at coding school

Projects

Stock Trading Backtester | **Python, Pandas, NumPy, Matplotlib, Scitkit-learn** *February 2020 – Present*
- Developed backtesting platform for testing stock trading strategy performance using Python
- Utilized SPX put option open interest data to devise trading strategy that beat an SPX buy-and-hold strategy by 20% (166% cumulative return vs. 146% cumulative return), backtested from May 2011 to August 2020
- Scraped equity price and options data from Yahoo Finance and Alphavantage APIs
- Visualized correlations and backtest results using Matplotlib and Scikit-learn Python libraries

Intelligent Flashcard Platform | **JavaScript, NodeJS, React, Express, MongoDB** *July 2020 – Present*
- Developed MERN stack (MongoDB, Express, React, Node) web app that allows users to create and study flashcard sets. Users can explore sets made by others, and can share sets with other users
- Designed recommendation system that instructs users on what to study in each set based on their correct and incorrect answers in previous study sessions
- Implemented email notification system to remind users to study certain sets of flashcards

Reddit Repost Bot | **Python, OpenCV, NumPy** *August 2020 – September 2020*
- Designed reddit bot that detects if a certain post is a copy, or repost, of another post in the same subreddit
- Implemented image detection with OpenCV and NumPy

Google Forms Automation System | **Python** *August 2020*
- Developed Python program for automating the submission of Google Forms
- Utilized requests Python library and query parameters to send data to specific form URL

Activities/Interests

Google Student Developer Club (Georgia Tech, UMass Amherst) | Member *July 2020 – Present*
The Agency (AI and ML club at Georgia Tech) | Member *January 2020 – Present*
Interests: Weightlifting, stock trading, golf, chess, jazz drumming