

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, Linux (Ubuntu), MongoDB, Docker, AWS

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 classifies 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, Scikit-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
- Constructed REST API with Node and ExpressJS to allow server to serve study sets from database
- Implemented email notification system that alerts users when they should study certain sets

Reddit Repost Bot | Python, OpenCV, NumPy, AWS EC2

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
- Launched and run on Amazon EC2 instance

Google Forms Automation System | Python

August 2020

- Developed Python program for automating the submission of Google Forms
- Implemented using Python requests library and URL query parameters

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