# Jack Palaia

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### **Education**

## Georgia Institute of Technology, Atlanta, GA

*August 2019 - May 2023 (expected)* 

B.S. in Computer Science, GPA: 3.95/4.0

Coursework: Data Structures and Algorithms, Intro to OOP, Objects and Design, Discrete Math, Linear Algebra

#### **Skills**

Languages: JavaScript, TypeScript, Python, Java, C, C++, Rust, PostgreSQL, HTML, CSS

**Frameworks/Technologies**: Node, Express, React, Redux, JWT, Jest, Pandas, NumPy, SK-learn, NLTK, Django, Git, Linux (Ubuntu), AWS (EC2, Lambda), Docker, Kubernetes

# **Experience**

## **Dreambound**, San Francisco, CA | **Software Engineer Intern**

January 2021

#### VHomes, Remote | Software Engineer Intern

December 2020 - Present

Developed user sign-up page using ReactJS

#### **Georgia Tech Foundation**, Atlanta, GA | **Quantitative Investments Intern**

August 2020 – December 2020

- 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

# **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

#### Full-Stack Flashcard Web Application | JavaScript, Node, 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 Express 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

#### **Activities/Interests**

Google Student Developer Club (Georgia Tech, UMass Amherst) | Member The Agency (Al and ML club at Georgia Tech) | Member July 2020 – Present

Interests: Weightlifting, stock trading, golf, chess, jazz drumming

January 2020 – Present