

EDUCATION

Georgia Institute of Technology

Atlanta, GA

Master of Science in Computer Science, Machine Learning

Expected Graduation: May 2025

Relevant Coursework: Data Structures and Algorithms, Data Analysis w/ Python, Software Development (SDLC), Databases, Computer Networks, Machine Learning for Trading, Knowledge Based Artificial Intelligence, Statistics and Probability

Experience

Warner Bros. Discovery

Oct. 2022 - Aug. 2023

Atlanta, GA

Analyst

- Developed dashboards for NCAA's March Madness Live iOS and Android applications to facilitate easy data visualization and analysis.
- Implemented scalable web, mobile application, and connected device advertising products using **React** and various internally developed libraries.
- Collaborated with prominent sports brands such as MLB, NHL, and NBA to analyze digital ad data, contributing to revenue growth initiatives.

NASA MINDS Nov. 2021 - Jun. 2022

Software Engineer

Atlanta, GA

- Developed a system for NASA's Artemis program using **Python** and **OpenCV** to assess structural integrity using contactless evaluation.
- Built an interactive dashboard using **Pandas and Dash framework** to visualize data and display metrics in real-time
- Integrated external sensors on a microcontroller board to enhance the system's capabilities for comprehensive monitoring and analysis using canny edge and feature detecting methods

Projects

Technical Indicators | Python, Numpy, Pandas, Matplotlib

- Developed an application with a focus on enhancing trading strategies through the implementation and analysis of various indicators, including SMA, Bollinger Bands, Stochastic Oscillator, CCI, and Golden/Death Cross.
- Conducted in-depth technical analysis to inform trading decisions and optimize performance.
- Engineered a baseline strategy to assess the upper bounds of potential returns, providing valuable insights into the performance limits of the trading strategies implemented.

Portfolio Optimization | Python, Numpy, Pandas, SciPy, Matplotlib

- Utilized SciPy optimization functions to maximize the Sharpe Ratio to find the optimal risk-adjusted return for portfolios
- Implemented metrics to assess portfolio performance, enhancing analytical capabilities.
- Conducted data analysis and applied statistical techniques to evaluate portfolio performance, demonstrating proficiency in quantitative analysis and financial modeling.

Profit Return Modeling | Python, Numpy, Matplotlib

- Created four supervised learning models to predict returns for MSCI emerging markets index
- Implemented decision tree learners, random forest learners, and bootstrap aggregation with Numpy and Python
- Used methods of statistics and probability such as **metrics and error analysis** to provide a quantitative assessment of how close predictions are to actual values

TECHNICAL SKILLS

Languages: Java, Python, Typescript, SQL, JavaScript, HTML/CSS

Frameworks: React, Node.js, Flask, JUnit, Dash, Spring, TensorFlow, Mockito

Developer Tools: Git, Docker, Postman, AWS, MongoDB, Firebase **Libraries**: Pandas, NumPy, SciPy, Matplotlib, Apache Commons