Ojas Kalra

US Citizen | 862-202-3645 | okalra3@gatech.edu | Linkedin: ojaskalra | Github: ojas480

Education

Georgia Institute of Technology — Atlanta, Georgia
B.S. in Computer Science & B.S. in Mathematics — *Expected May 2026*

- **Major GPA:** 3.8/4.0
- **Coursework:** Math Statistics I, Probability Theory, Machine Learning, Second Course in Linear Algebra, Algorithms, Complexity Theory, Analysis I, Number Theory, Differential Equation, Multivariable Calculus

Experience

Researcher — May 2024 – Present
Georgia Institute of Technology — *Atlanta, Georgia*

- Research under the guidance of Dr. Eunhye in topics related to discrete choice method and regression
- Used monte carlo simulation and regression models to simulate market behavior and find optimal pricing strategy

Researcher — January 2024 – Present
Machine Learning for Financial Markets Research Group — *Atlanta, Georgia*

- Collaborated in a team to replicate a study on modality prediction in financial dialogue focusing on the analysis of question-answer pairs from earnings calls to predict the strength of modal answers
- Created dataset comprising 3,000 question-answer pairs, annotated for modality to train a binary classifier
- Trained various machine learning models (Naive Bayes, Logistic Regression, XGBoost) and evaluated across different metrics (precision, recall, F-score and SHAP values)

Undergraduate Teaching Assistant — August 2023 – Present
Georgia Tech School of Mathematics — *Atlanta, Georgia*

- Graded assignments and exams for over 100 students per semester for Combinatorics Math 3012
- Incoming undergraduate teaching assistant for Math 1553 Linear Algebra

Investment Banking Intern — July 2023 – August 2023
Brean Capital LLC — *New York City, New York*

- Used Excel to enhance securitization model and improve bond pay and cash flow
- Conducted in-depth research on 50+ companies, resulting in the development of 3 compelling company teasers for potential client engagements
- Developed analysis report of the insurance sector using CapIQ, Finsight, and Bloomberg to analyze EBITDA multiples, P/B ratios, average ROE, and volume trends, providing insights for investment decisions

Competitions & Awards

IMC Prosperity Trading Competiton: Top 100 out of 10,000 teams — April 2024
Cornell Trading Competition: Top 5 (Bidding), Top 6 (System Equities), Top 8 (Crypto Trading) — October 2023
2x American Invitational Math Exam Qualifier — March 2021, March 2022
USACO Silver Ranking — February 2022

Projects

Cornell Trading Competition

- Developed market neutral trading strategies that would go long or short depending on price to sales ratio and developed turnover strategy that would automatically re-balance portfolio (6th place)
- Researched HFT strategies and developed a trading strategy that used SMA on bid price and ask price and bought or sold based SMA lines crossovers (8th place)

NLP Machine Learning Project

- Worked with a team to solve writers block; created 6 NLP bots generating 3-5 story continuations from user input
- Used stemming and lemmatization to preprocessed data from 120 novels using Pandas and trained models via Open AI API and GPT Neo for 150+ hours with PyTorch

Skills

Languages: Python, Java, C++, C, SQL, HTML, CSS
Technologies: NumPy, Scikit-Learn, Jupyter, Flask, JUnit, Github, PyTorch, Pandas, Tensorflow, Linux, Matplotlib