# MICHAEL LEE

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#### **EDUCATION**

## Northwestern University

Evanston, IL

Bachelor of Arts in Math and Economics

September 2022 – December 2025

- Cumulative GPA: 3.93/4.00 | ACT Math: 36/36 | Dean's List: 2022, 2023, 2024 | National Merit Finalist | AP Scholar
- Coursework: Probability & Statistics, Game Theory, Econometrics, Differential Equations, Linear Algebra, Discrete Math

#### Experience

### **Kellogg School of Management**

Evanston, IL

Research Assistant (Advisor: Prof. Leander Heldring)

June 2024 – September 2024

- Developed LLM tools in Python for a multi-year economics research project studying academic literature and public policy
- Fine-tuned a BERT language model for textual entailment; procured a data set of 1000+ manually classified sentence pairs
- Created a RAG pipeline using **Langchain**, used to quickly extract policy-relevant information from research papers and books

## **Project Destined**

Washington, DC

Real Estate Research Intern

September 2023 – November 2023

- Led a group of nine interns to pitch a multi-family residential property in Hermosa, Chicago valued at \$2.6 million; ranked as
  the 1st place investment pitch in the Midwest division and attracted investment from project managers at Northmarq and JLL
- Assisted in preparing financial models for properties in Chicago including a 10-year forecast DCF and sensitivity analysis
- Conducted an extensive analysis of the Chicago real estate market by reviewing demographic data, historical mortgage and rent trends, projected growth in housing prices, and comparative economic data in the New York and Los Angeles housing market

RelationTrip Evanston, IL

Software Engineering Intern

June 2023 – September 2023

- Developed a social networking app downloaded by 80+ couples at the Northwestern Jumpstart Pre-Accelerator program
- Built an API and 15+ endpoints to store, read, and update user data using Express.js, connected to a CockroachDB database cluster using node-postgres and SQL; deployed the API on Google Firebase and tested API requests through Postman
- Created front-end features using **React Native** including screen navigation, user authentication, and location tracking

## Extracurricular

#### Institute of Electrical and Electronics Engineers

Evanston, IL

Data Engineer

January 2024 – May 2024

• Led six undergraduate students to create a machine learning application in **Python** to interpret sign language from real-time video, utilizing **OpenCV** and **MediaPipe** to process footage, detect joint movement, and train a convolutional neural network

#### Northwestern Debate Society

Evanston, IL

Varsity Debater

June 2022 – Present

- Conducted 500+ hours of research on American politics, emerging technology, environmental policy and nuclear conflict
- Achieved **first** place in the J.W. Patterson College Debate Tournament Wildcat Division in a pool of 50+ competitors
- Organized and led summer debate program at Northwestern reaching 50+ students from urban Chicago high schools

#### **Projects**

## Northwestern Trading Competition | Python, NumPy, pandas, Jupyter

October 2023

• Created a stock trading algorithm in **Python** utilizing a short-window moving average crossover strategy to manage and trade \$100,000 in simulated capital; achieved a leading PnL score and **top six placement** in a field of 25+ undergraduate teams

**SimpleSQL**  $\mid C++, SQL$ 

January 2023

• Built an **SQL** execution environment in **C**++ including developing a lexical analyzer, checking for and correcting semantic and syntactic errors in SQL queries, and writing robust test suites using public transit and movie databases with **1000+ entries** 

## Additional Information

**Skills**: Python (NumPy, pandas, SciPy, Jupyter), C++, R (tidyverse), Stata, SQL (Postgres), JavaScript, Korean, MS Office **Membership**: Algorithmic Trading Club, Blockchain Group, IEEE ML Team, NTech Quant, Northwestern AI, Debate Society **Awards**: Gingras, Thomsen & Wachs Attorney Scholarship (**1st/500**), Milton S. Florsheim Prize, John B. Kirk Award **Interests**: Performance Psychology, Competitive Typing, Basketball, Minesweeper, Debate Coaching, Future Funk Music