

# MINWU KIM

◇ mwk300@nyu.edu ◇ [Linkedin](#) ◇ [Homepage](#)

## EDUCATION

### New York University Abu Dhabi

Aug 2018 - Jun 2024

*Bachelor of Science in Computer Science, Minor in Applied Math*

*Abu Dhabi, UAE*

- GPA: 4.0/4.0 (summa cum laude)
- Awards: Full Academic Scholarship (\$80,000/year), University Honors Scholar.
- Relevant Courses: Machine Learning, Reinforcement Learning, Optimization, Probability Theory, Econometrics

## PUBLICATIONS

- **M. Kim\***, S. Shrestha\*, and K. Ross, “*Mathematical Reasoning in Large Language Models: Assessing Logical and Arithmetic Errors across Wide Numerical Ranges*,” preprint; submitted to ACL 2025. ([link](#))
- **M. Kim\***, S. Benabderrahmane, and T. Rahwan, “*Interpretable Machine Learning Models for Predicting the Next Targets of Activist Funds*,” *The Journal of Finance and Data Science*, Vol. 10, Dec. 2024. ([link](#))

## RESEARCH EXPERIENCES

### NYU Deep Reinforcement Learning Lab

Sept 2024 - Aug 2025 (Expected)

*Researcher* (advisor: [Prof. Keith Ross](#))

*Abu Dhabi, UAE*

- Currently exploring and improving the self-verification abilities of LLMs with reinforcement learning.
- Conducted a [study](#) exposing logical inconsistencies in LLMs’ mathematical reasoning across numerical ranges.

### NYU Embodied AI and Robotics Lab

Oct 2023 - Dec 2023 / May 2024 - Aug 2024

*Research Assistant* (advisor: [Prof. Yi Fang](#))

*Abu Dhabi, UAE*

- Constructed an agentic workflow pipeline and developed a RAG chatbot for the NYUAD community, leveraging 40K+ documents and deployed during freshman orientation week to enhance access to school resources.
- Elevated the product to a multi-LLM-agent ecosystem across eight NYUAD departments, enabling API-driven tool automation; selected for the NYU Engineering Ventures Incubator.

### NYU Data Science and AI Lab

Feb 2023 - May 2024

*Researcher* (advisor: [Prof. Talal Rahwan](#))

*Abu Dhabi, UAE*

- Built a prediction model for activist fund targets in the US stock market using seven years of Russell 3000 data, covering 46 variables, including novel ESG and ownership factors unexplored in previous studies.
- Achieved SOTA performance with an AUROC of 0.78 (previous best: 0.67) and a 26.7% hit rate for the top 30 companies in 2023 (average: 3.7%); performed SHAP analysis to capture complex target selection dynamics.
- Authored a [study](#) published at *The Journal of Finance and Data Science*; collaborated with *Bloomberg* on embedding the prediction model to its activism screening product.

### KDI School of Public Policy and Management

May 2023 - Dec 2023

*Research Assistant* (advisors: [Prof. Jaehyuk Park](#), [Prof. Seohyun Lee](#))

*Sejong, South Korea*

- Studied long-term impacts of the 1997 Asian Financial Crisis on Korean elderly with census microdata (1997–2020); conducted heterogeneous treatment effect with causal forest to reveal subgroup-specific effects ([log](#)).
- Built a newspaper index tracking OPEC interest, showing unexpected rises correlate with increased oil price volatility, often driven by unpredictable OPEC events or economic shifts.

WORK EXPERIENCES

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- Diffy.AI

AI Engineer Intern

June 2024 - Aug 2024

Suzhou, China

  - Architected a drag-and-drop GraphRAG LLM app development platform; devised a novel approach for cost-efficient graph construction and node retrieval; implemented interactive graph visualization and editing features.
- Breaking

Software Engineer, Co-founder

Feb 2022 - Dec 2022

Seoul, South Korea

  - Co-founded *Breaking*, an online platform which facilitates news reports trading between users and press agencies.
  - Designed and developed the RESTful server API with Java Spring Boot and Spring Data JPA ([code](#)).
  - Received angel round offer from *Sherpa Ventures* (\$75k approx.); won the Bronze prize at *Korea Press Foundation Data Hackathon* and qualified the first round of *Republic of Korea Army Startup Competition*.

PROJECTS & LEADERSHIP

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- NYUAD Business and Finance Society

Macroeconomics Analyst

Jan 2022 - Oct 2022

Abu Dhabi, UAE

  - Published 40+ macroeconomics articles analyzing topics including Fed’s monetary policies, the US-China trade war, chip war, and the decline of the petrodollar system; garnered 30k+ views.
- Resow

Software Engineer

Aug 2022 - Dec 2022

New York, US

  - Developed and tested a P2P second-hand online marketplace for the NYU community with MERN Stack.
- ADNOC Bloomberg UAE Trading Challenge

Algorithmic Trader

Mar 2022 - Apr 2022

Abu Dhabi, UAE

  - Implemented an algorithm to select high-volume tickers on the Dubai Financial Market, using RSI and MACD crossovers for trade signals; outperformed the market benchmark by 5.2%, ranking 17th among 282 teams.
- Republic of Korea Army

Sergeant

Dec 2019 - Jun 2021

Gyeryong, South Korea

  - Served as a Chinese Language Specialist at *Personnel Command, Republic of Korea Army HQ*.

TECHNICAL SKILLS

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Programming	Python, C/C++, R, Java, Javascript, SQL, Neo4j, Git
Libraries	Pytorch, Numpy, Pandas, Keras, Sklearn, HuggingFace, EconML, Langchain, AutoGen
Languages	English (fluent), Chinese (fluent), Korean (native)