

REMY KIM

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EDUCATION

University of Pennsylvania

Philadelphia, PA

GPA: 4.00 / GRE: 161|170|4.5 / MS Candidate in Computer and Information Science

Aug 2022 - May 2024

Relevant Coursework: Stochastic Models, Applied Machine Learning, Big Data Analytics, Cryptography

Seoul National University

Seoul, South Korea

GPA: 3.75 / BS Electrical & Computer Engineering and BA Business Administration (Dual Major)

Mar 2016 - Aug 2022

Relevant Coursework: Linear Algebra, Probability and Stochastic Processes, Estimation Theory, Control Theory, Data Science Capstone, Data Structure, Computer Organization, Financial Management, International Financial Markets, Intro to Accounting

SKILLS SUMMARY

- **Languages:** C/C++, Python, SQL, MATLAB, R, Javascript, Solidity, Linux Scripting
- **Tools:** PyTorch, Hugging Face, Scikit-learn, MongoDB, Redis, ElasticSearch, Docker-Compose, Django, AWS CLI, Git, Jira, Hardhat

WORK EXPERIENCE

Kokoa Finance Labs

Seoul, South Korea

Quantitative Researcher

Jan 2022 - July 2022

- For 3 DeFi protocols (Kokoa, Kokonut and Stakehouse) of aggregate TVL of \$200M+, conducted quantitative financial risk assessment analysis on asset default risks and points of failure across the Klaytn DeFi ecosystem
- Proposed valuation models that considers "Cost of Liquidity (Cost of Capital equivalent of On-Chain Liquidity)" which is unique to DEXes (as opposed to CEXes) and created a financial model for controlling adequate protocol interest rate and stability fee of the collateral-backed stablecoin platform
- Tools: **Git, SQL, Hardhat, Solidity, Javascript, MongoDB, Python, MATLAB**

Allganize, inc.

Seoul, South Korea

Part-time Machine Learning Engineer

June 2021 - Dec 2021

- As a ML engineer in a B2B NLP startup, designed and built Key-Value Extraction MVP (solution recognizing meaningful key-values from input documents) using the LayoutXLM model and AWS EC2 instances. Leading a team of two, successfully closed a long-term contracts with SMBC subsidiaries after demonstrating the solution's automation capabilities towards customers
- Improved service latency of model inference by 1.54x by migrating the entire inference pipeline to Tensorflow Extended
- Tools: **Git, PyTorch, HuggingFace, Tensorflow Extended, Docker-Compose, Django, MongoDB, Redis, Jira**

Air Force Operations Command

Republic of Korea Air Force

USAF Liaison/Linguistic Specialist

Sep 2017 - Aug 2019

- Interpreted in weekly combined meeting with 7th Air Force (USAF) CE dep. and biannual Command Post Exercises
- As Staff Sergeant of Command, assisted Operations Commander Lee in the process of implementing Military Reform Plan 3.0

RESEARCH EXPERIENCE/EXTRACURRICULARS

Operations Research Group by Prof. Minhwan Oh

Seoul National University

Research Intern

Mar 2021 - July 2021

- Wrote a comprehensive survey paper on current exploration in deep reinforcement learning, ranging from intrinsic motivation methods to model-based exploration (ex. MOReL) and distributional RL (ex. Quantile Regression)
- Conducted research on deep exploration performance improving upon bootstrapped DQN and SWAG (Maddox et al., 2019)

SNU FIXERS (Fixed Income/Derivatives Club)

Seoul National University

Co-Founder

Mar 2017 - Dec 2020

- Conducted in-depth quantitative research and lead five seminars with topics ranging from 2008 financial crisis, fixed income/derivatives, ISDA Master Agreement and Korea Treasury Bond Currency Swap (CDS-based Swap hedging client's Korea currency risk)

Continual Learning of Mujoco Robot Manipulation Tasks using LwF (max of 3 tasks)

Jan 2021 - Jul 2021

PyTorch Implementation of Agent57 (DeepMind paper(2020) on Atari games)

Aug 2021 - Feb 2022

ADDITIONAL INFORMATION

- **Interests:** Backtesting with Historic Data, Freediving and Skydiving, Avid Tennis Player
- **Honors and Awards:** National Humanities and Social Sciences Scholarship(Dec 2020), Changkang Foundation Scholarship(Dec 2020), 2016 KNC Champion(Largest inter-varsity English debate championship, EFL), College Merit-based Scholarship(Sep 2016)
- **Languages:** English(Native), Korean(Native), Mandarin(Conversational)
- **Favorite Books:** Antifragile, How Not to Be Wrong, The Network State, Narrative and Numbers