Min-Kuan Chen （陳旻寬）

I'm Min-Kuan Chen, a research-oriented graduate student passionate about AI applications.

📌 Bio: https://minkuanishere.github.io/min-kuan-cv/
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Education

- **M.S., Institute of Network Engineering, National Yang Ming Chiao Tung University**(Feb 2025 – Expected Jan 2027)
- **M.S., Department of Money and Banking, National Chengchi University** (Aug 2022 – Jul 2024)
- **B.S., Information and Finance Management, National Taipei University of Technology**(Aug 2018 – Jul 2022)

Publications

- **Min-Kuan Chen.** (2024). Based on Quantile Regression Forests for Predicting Option Settlement Price Returns and Trading Strategy Applications (Master's Thesis). https://hdl.handle.net/11296/627bsx
- **Min-Kuan Chen**, Dong-Yuh Yang., Ming-Hua Hsieh, and Mu-En Wu. (2024). An intelligent option trading system based on heatmap analysis via PON/POD yields. *Expert Systems with Applications*, 257, 124948. https://doi.org/10.1016/j.eswa.2024.124948
- **Min-Kuan Chen**, Ming-Hua Hsieh, Yen-Lin Chen, and Mu-En Wu. (2022). On the prediction of stock price return based on LSTM and application for options trading. *2022 TRIA-FeAT Conference*.
- **Min-Kuan Chen**, Mu-En Wu, and Wen-Shuen Wu. (2022). Quantitative trading of vertical spread option strategies with stop-loss by machine learning. *5th International Conference on Econometrics and Statistics*.

Projects & Research

- **LLM Application with RAG and Agent Framework** (Feb 2025 – Now)
  Developed an agent-based system integrating Retrieval-Augmented Generation (RAG) for dynamic knowledge retrieval and task execution.
- **Reinforcement Learning for Quantitative Trading** (Sep 2021 – Jun 2022)
  Applied deep RL techniques to forecast stock price movement and optimize trading strategies.
- **CNN-based Image Recognition** (Sep 2021 – Jun 2022)
  Built and trained convolutional models for classification tasks using structured image datasets.
- **Machine Learning for Classification & Regression** (Sep 2021 – Jun 2022)
  Constructed supervised learning models to forecast financial indicators and trend patterns.

Experiment

- **Research Assistant, 國科會** (Jan 2023 – Dec 2023)
  Developed intelligent option trading systems using AI-driven market analysis methods.
- **大專生計畫, 國科會** (Jul 2021 – Dec 2021)
  Designed a rule-based ML framework for automated options trading under academic supervision.
- **Research Assistant, 中華民國證券櫃檯買賣中心** (Feb 2022 – Jul 2022)
  Research on algorithmic trading regulatory mechanisms and market impact