

Yejin Hwang

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EDUCATION

Texas A&M University, Corpus Christi

Master of Data Science | 4.0 GPA

Expected Graduation: Dec 2025

Sungkyunkwan University, South Korea

Bachelor of Culture&Technology/Food Science&biotechnology | 3.7 GPA

Aug 2023

SKILLS

Python · R · SQL · scikit-learn · PyTorch · NLP · Time-series forecasting · Pandas · NumPy · Matplotlib · yfinance · Statsmodels

EXPERIENCE

Research Assistant | [LAB](#)

Texas A&M University-Corpus Christi

- Conducted literature reviews and prepared annotated summaries to support AI forecasting research
- Assisted with dataset preparation, labeling, and anomaly detection for time-series and text data

Sep 2024 - Present

Corpus Christi, TX

Teaching Assistant

Texas A&M University-Corpus Christi

- Assisted in teaching College Algebra, Trigonometry, and Calculus courses through recitation sessions
- Held office hours at Math Learning Center, offering one-on-one support that enhanced student confidence

Sep 2024 - Present

Corpus Christi, TX

Student Researcher | [CCE](#)

Samsung Medical Center-CCE(Clinical Center for Epidemiology)

- Built 100+ patient data pipelines integrating CRF and EMS, reducing manual data entry time by 40%
- Managed and cleaned 1,000+ clinical datasets to ensure high-quality data for epidemiological studies
- Supported data collection and analysis for rare and oncological diseases research
- Collaborated with leading epidemiology researchers(Prof. Juhee Cho, SAHIST/Johns Hopkins) on cross-institutional studies

Aug 2022 - Aug 2023

Seoul, South Korea

Undergraduate Research Assistant | [LAB](#)

SKKU(Sungkyunkwan University)

- Conducted literature reviews and data handling under Prof. Jinhee Hur, Harvard Research Fellow
- Designed and prepared experimental setups following academic research protocols
- Analyzed datasets using Python, Excel, and statistical methods (e.g., regression analysis, hypothesis testing)
- Interpreted results to support conclusions and inform further experimental design

Mar 2022 - Jul 2022

Seoul, South Korea

RESEARCH PROJECTS

Financial Time Series Forecasting with Deep Learning & Social Media Sentiment | Thesis Project

June 2025 - Present

- Developed forecasting pipelines integrating Reddit sentiment with stock data to analyze online discourse
- Integrated FinBERT sentiment and activity spike detection, reducing RMSE from 19.26 (ARIMA) to 4.56 (TFT+Reddit)
- Applied explainable AI methods (attention, encoder, variable importance) to reveal sentiment volatility as a key predictor
- Combined social computing and text mining to map Reddit activity spikes to stock market dynamics
- Automated SQL/API pipelines for scalable extraction of Reddit and financial market data
- **Repository with full code and results:** [\[GitHub - Thesis Project\]](#)

Stock Forecasting with Transformer Models | Individual Project

Feb 2025 - Apr 2025

- For 90-day prediction, reduced RMSE by 49 percent (ARIMA 83.22 to Chronos 42.24) and MAE by 46 percent (63.93→34.45)
- For 5-day prediction, reduced RMSE by 20 percent (ARIMA 11.27 to TimesFM 8.99) and MAE by 24 percent (9.64→7.37)
- Presented at Joint NMSU/UTEP Conference on Math, Computer Science & Computational Sciences
- Presented at Coastal Bend Mathematics and Statistics Conference

Publication

Hwang, Yejin; Heavilin, Jason; Palaniappan, Devanayagam; Guggilam, Sreelekha. *Financial Time Series Forecasting with Deep Learning Models and Social Media Sentiment*. In preparation for submission to a peer-reviewed journal.

Activities

SKKU President's Award (Samsung Foundation) - Awarded ₩2M for biotechnology R&D project([Article](#))

Nov 2024