Yejin Hwang

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Education

Texas A&M University-Corpus Christi — Corpus Christi, TX
Master of Data Science; GPA: 4.0 — *Expected Dec 2025*

Sungkyunkwan University (SKKU) — Seoul, South Korea
B.A. in Culture & Technology (Data Science); GPA: 3.72 — *Graduated Aug 2023*

Experience

Research Assistant — Sep 2024 – Present
Texas A&M University-Corpus Christi — *Corpus Christi, TX*

- Led research on time-series forecasting of stock data using ARIMA, TimesFM, and Chronos-T5 (TSLA, AAPL, NVDA).
- Improved forecasting accuracy by 30% (MAE reduction) through feature engineering, hyperparameter tuning, and model selection.
- Presented at academic conferences and built reproducible dashboards with Python for results interpretation.

Data Analyst — Aug 2022 – Mar 2024
Samsung Medical Center — *Seoul, South Korea*

- Developed machine learning models for early disease detection; improved classification accuracy by 15%.
- Managed and analyzed 10K+ patient records through AWS-based ETL pipelines and SQL optimization.
- Collaborated with medical staff and data engineers to deliver real-time analytics for clinical decision-making.

Projects

Stock Forecasting Pipeline with Transformer Models | *Python, Hugging Face, TimesFM, Chronos-T5* Apr 2025

- Built a full pipeline to forecast stock prices using yfinance API and applied both classical and transformer models.
- Evaluated short-term forecasts on TSLA, AAPL, and NVDA; proposed model ensemble strategy for robustness.
- Developed reproducible pipelines integrating yfinance API, PyTorch, and visualization dashboards.

Bayesian Healthcare Risk Modeling (Finance-Focused Capstone) | *R, MCMC(HMC), Regression* May 2025

- Developed probabilistic regression model for forecasting insurance charges, supporting actuarial cost modeling and financial risk assessment.
- Applied Bayesian hierarchical regression with nonlinear effects (age^2) and BMI×smoker interaction; validated via HMC and WAIC.
- Outperformed frequentist models (RMSE ↓2.7%, MAE ↓2.1%); enabled better uncertainty quantification for data-driven financial policy design.

Presentations & Research

Joint NMSU/UTEP Workshop on Math, Computer Science & Computational Sciences — Apr 2025
Presented forecasting model comparison using Chronos-T5 and TimesFM on TSLA data — *Las Cruces, NM*

Coastal Bend Mathematics and Statistics Conference — Apr 2025
Presented research on transformer vs. traditional models for stock price prediction — *Corpus Christi, TX*

Awards

SKKU Dean's Award for Excellence in Global Engagement — Mar 2023
Recognized for top-level academic achievement and cross-cultural research initiatives — *Seoul, South Korea*

Technical Skills

Languages: Python, R, SQL, HTML/CSS, Bash
Frameworks: Flask, scikit-learn, TensorFlow, PyTorch, Streamlit
Tools: Git, Docker, AWS, MySQL, Tableau, Power BI, Excel, VS Code, LaTeX
Libraries: pandas, NumPy, yfinance, matplotlib, seaborn, transformers, statsmodels