# Yejin Hwang

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## EDUCATION

# Texas A&M University-Corpus Christi

Master of Data Science; GPA: 4.0

Corpus Christi, TX

Expected Dec 2025

## Sungkyunkwan University (SKKU)

B.A. in Culture & Technology, Food Science & Biotechnology(Double Major); GPA: 3.72

Seoul, South Korea

Aug 2023

### Technical Skills

Languages:Python, R, PostgreSQL

Frameworks: Scikit-learn, TensorFlow, PyTorch, Streamlit Tools: Git, Tableau, Excel, VS Code, Jupyter Notebook, LaTeX

Libraries: Pandas, NumPy, Scipy, Yfinance, Matplotlib, Seaborn, Transformers, Statsmodels

## Professional Experience

#### Research Assistant

Sep 2024 – Present

Texas A&M University-Corpus Christi Corpus Christi, TX

- Led research on time-series forecasting of stock data (TSLA, AAPL, NVDA) using ARIMA, TimesFM, and Chronos-T5, focusing on short-term market prediction and outlier analysis.
- Engineered key features such as lag variables, rolling statistics, volatility measures, and pattern recognition techniques to detect anomalies and enhance forecast accuracy.
- Improved model performance by 30% MAE reduction, supporting more reliable data-driven investment strategies.
- Built reproducible Python pipelines integrating yfinance API and PyTorch for automated data ingestion, model training, and reporting, maintaining attention to detail throughout each stage.
- Presented model comparison and results at major conferences, emphasizing real-world financial implications.

## Clinical Data Specialist

Aug 2022 - Mar 2024

Samsung Medical Center

Seoul, South Korea

- Managed large-scale patient datasets, including physical, mental health, and medication records, by working directly with cancer patients and clinical staff.
- Built and maintained ETL pipelines to ensure high-quality, reliable data for clinical research and hospital decision-making.
- Collaborated with medical professionals to identify patient needs and improve data collection processes, supporting more effective and timely healthcare delivery.
- Applied biostatistics and data analytics techniques to provide actionable insights for multidisciplinary healthcare projects.
- Contributed to a culture of evidence-based medicine by enhancing data integrity and supporting high-impact research initiatives.

## DATA SCIENCE PROJECTS

## Tesla Sentiment Analytics & ETL Pipeline | Python, Pandas, yfinance, VADER, SQL

- Developed an automated ETL pipeline integrating Tesla stock price data (via yfinance API) with Reddit-derived sentiment scores using VADER.
- Engineered time-based and moving average features, handled missing values, and merged multi-source data for downstream analytics.
- Stored final datasets in both CSV and SQLite, facilitating reproducible research and dashboard-ready data for market analysis.

## Stock Forecasting with Transformer Models | Python, PyTorch, Hugging Face, TimesFM, Chronos-T5

- Implemented end-to-end forecasting pipelines for TSLA, AAPL, and NVDA using classical and transformer-based models.
- Conducted comparative analysis and proposed ensemble strategies to maximize forecast robustness.
- Built custom Python modules for data ingestion, feature engineering, and interactive visualization; delivered reproducible code and results.

Joint NMSU/UTEP Conference on Math, Computer Science & Computational Sciences

Presented forecasting model comparison using Chronos-T5 and TimesFM on TSLA data

Las Cruces, NM

Apr 2025

Coastal Bend Mathematics and Statistics Conference

Corpus Christi, TX

AWARDS

SKKU Dean's Award for Excellence in Global Engagement

Mar 2023

Apr 2025

Recognized for top-level academic achievement and cross-cultural research initiatives

Presented research on transformer vs. traditional models for stock price prediction

Seoul, South Korea