Junseong Lee

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EXPERIENCE

Sergeant (E-5)
2nd Infantry Division, U.S. Army

Oct 2023 – Apr 2025
Camp Humphreys

- Developed and deployed a web application for the battalion's event management system and automation using Python, Flask, HTML, CSS, Javascript, and Google API, deploying it on an AWS EC2 instance with Nginx serving as a reverse proxy to forward requests to Gunicorn WSGI server
- The application is currently in use at the military base, efficiently managing 30+ battalion-scale events with a total of 800+ participants
- Awarded the Army Commendation Medal and the Army Achievement Medal for proactive contributions to enhance operational efficiency

Co-founder
Scroll

Dec 2022 - Oct 2023
Cozad New Venture Challenge

- Developed a prototype for AI-driven educational content summarization startup, integrating the Infinite Scroll Effect with HTML, CSS, JavaScript, and Flask. Utilized GROBID, Tesseract OCR, and BeautifulSoup to extract raw text from PDFs, images, and URLs for content processing
- Leveraged OpenAI GPT-4 API and advanced prompt engineering to generate summaries with definitions, examples, and cause-effect relationships, creating a social media-style feed
- Secured $1,250+ in funding through pitch competitions and achieved official trademark registration, establishing a foundation for product commercialization

Quantitative Trading Analyst
Quant @ Illinois

Jan 2023 - May 2023
Champaign, IL

- Developed a momentum-based trading algorithm using MACD, RSI, and Stochastic Oscillator
- Tested the strategy on historical market data using Quantconnect Lean to evaluate the strategy's performance metrics (Sharpe ratio, drawdown, win rate), optimizing parameters for reduced risk exposure

PROJECTS

Heart Disease Prediction
Machine Learning

Sep 2024 - Oct 2024
Personal Project

- Developed a Random Forest model achieving 88.89% accuracy in predicting heart failure risk based on patient data from UCI's open source database

S&P Index Prediction using Macroeconomic Indicators
Data Science

Dec 2022 - Mar 2023
Quant at Illinois

- Extracted and preprocessed 15+ economic indicator data from TradingView, analyzing relationships to identify leading signals for stock market trends
- Utilized Pearson correlation heatmaps and data visualizations to uncover patterns, conducting ADF and Granger Causality tests to ensure data stationarity and validate hypotheses
- Applied ARIMA models for time-series forecasting, integrating results into a Linear Regression model, achieving R^2 score of 57%

EDUCATION

University of Illinois at Urbana-Champaign
B.S Data Science and Finance, Computer Science Minor

Class of 2027
***GPA:** 3.75/4.00*

- Leave of absence from Fall 2023 to Spring 2025 due to military service

CERTIFICATIONS

AWS Certified Cloud Practitioner
Microsoft Office Specialist: Excel Expert (Office 2016)

KEY SKILLS

Languages: Python (pandas, numpy, scikit-learn, pytorch, opencv, statsmodels), Linux, HTML/CSS/Javascript
Tools: AWS, Git