Minseok Oh

Bay Area, CA | 408-334-5898 | ohmseok0524@gmail.com | Portfolio | LinkedIn

- MS in Information Systems (AI/ML) candidate at Santa Clara University (Expected June 2025)
- Experienced data scientist (10 years) uncovering insights to drive strategic decisions and organizational growth

WORK EXPERIENCE

FOLLOZE | San Mateo, CA — Jan 2024 – June 2024

Data Science Intern

- **Enhanced sales forecasting** and customer acquisition by developing a **hybrid XGBoost ensemble model** tailored to company size variations, resulting in **35% time efficiency improvement** in lead management. Addressed class imbalance using **SMOTE**, optimized for **recall (0.77) and F-beta (0.81)**, enabling sales teams to narrow down from managing all prospects to focusing only on high-probability conversion leads, significantly reducing wasted outreach efforts.

ORACLE | Seoul, South Korea — May 2019 – July 2023

Data Scientist (L5) - AI/ML & Data platform consulting

Product Recommendation System: Re-Ranking, Similarity Search & Bloom Filter

- Enhanced offline retail performance by developing a store-specific product **recommendation system** to address declining sales. Implemented **Matrix Factorization** with **re-ranking** algorithms, accelerated **similarity search** using FAISS, and applied **Bloom filters** to exclude unavailable items. Conducted **A/B test** across multiple locations, resulting in **4.5% monthly sales increase and 65% faster inference time**.
- **Architected data infrastructure** to support recommendation model for large product catalog. Built **scalable ETL** pipeline using **complex SQL queries**, created optimized **data warehouse** and **marts** for feature extraction and data preparation, enabling processing of several GB of daily data with high reliability and efficient model training cycles.

Customer Churn Prediction Model with Advanced Feature Engineering

- **Improved customer retention rate by 15%** by developing a **3-month churn prediction** model analyzing customer transaction patterns and credit status. Enhanced model performance by applying **class-weighting** techniques to balance churned vs non-churned customers and creating **20+ high-impact features** from financial product activity and customer relationship data, enabling targeted intervention strategies for at-risk customers.

Time Series Forecasting for Inventory Optimization

- **Streamlined regional logistics** and **inventory management** by enhancing demand forecasting accuracy for a $300M product line, resulting in **15% reduction in inventory costs.** Implemented **advanced time series modeling** incorporating **seasonal decomposition**, trend analysis, autocorrelation, and **differencing** techniques to optimize production scheduling and minimize excess stock.

LG Display | Seoul, South Korea — Jan 2013 – May 2019

Data Scientist

- Delivered actionable sentiment reports to IR team, resulting in **40% improved stakeholder satisfaction** with **risk monitoring** capabilities and faster response to potential reputation issues. **Developed real-time news sentiment analysis system** for proactive risk management by implementing **NLP text processing** and ElasticNet regression techniques. Created comprehensive text feature extraction pipeline including tokenization, embedding and semantic analysis, processing **400+ daily articles** through **web scraping.**

PROJECTS

Data Research Lab, KAIST | South Korea

Product Data Analyst (**Product/Marketing analytics** projects with startup companies)

Optimized E-commerce Recommendation System with Re-ranking & Negative Sampling

- **Increased CTR by 20% and CVR by 4.6%** on e-commerce platform facing declining engagement metrics. Developed and implemented a **re-ranking Matrix Factorization** recommendation model with **negative sampling** to effectively handle **implicit feedback**. Accelerated similarity search using **FAISS** library and optimized filtering with **Bloom Filter** algorithm, resulting in significantly improved product discovery and purchasing behaviors through rigorous **A/B testing**.
- Lead a **funnel optimization** project that **improved conversion rates by 6%** through **reducing cart abandonment**. Applied various statistical techniques to identify conversion bottlenecks and enhance

customer experience. Designed and implemented rigorous **A/B testing** for **promotion banners** and **targeted offers**, leading to significant improvements in conversion and **customer engagement**.

Santa Clara University | Santa Clara, CA Sep 2023 – June 2025

Financial QA & Sentiment Analysis chatbot

- Developed a **financial news analysis chatbot** with Streamlit UI, integrating **fine-tuned QA** (Phi-2) and **sentiment analysis** (RoBERTa) models, enabling users to extract actionable insights and make informed financial decisions efficiently.

Movie recommendation engine with GraphSage model and similarity search

- **Engineered movie recommendation engine** leveraging **graph neural networks (GraphSage)** deep learning algorithm and efficient similarity search (**Annoy**). Implemented **MLflow** for model versioning, **experiment tracking**, and production **deployment**, resulting in improved recommendation relevance and streamlined development workflow.

SKILLS

Scripting (programming) Language/Statistical tools| Python, SAS **Data Visualization**| Tableau, PowerBI
Database| MySQL, Oracle database, SQL Server
Data Analytics & Modeling| Predictive and Causal Analytics, Statistical Modeling, Machine Learning Modeling, Statistical Analysis (Experiment Design and Measuring, A/B Testing)
Data Engineering| Data Modeling, Data Warehousing, Big data, ETL, Web Crawling
Cloud & Distributed computing| Oracle Cloud (OCI), AWS, GCP
Soft Skill| Creativity, Mentorship, Presentation, Defining Problems, Technology Adaptability, Critical Thinking, Problem Solving, Communication

EDUCATION

Santa Clara University / Santa Clara, CA June 2025
MS in Information Systems (AI/ML)

KAIST (Korea Advanced Institute of Science Technology) / Seoul, South Korea Feb 2019
MS in Information Management

Dongguk University / Seoul, South Korea Feb 2013
BS in Electronic Engineering

Publication

Academic research at KAIST (Advisor: Jaehyeon An) 2019
Expected Values on the Continuous Intention to Use IoT Products from the Perspective of Expectation-Confirmation Theory *Published in the Journal of the Korean Operations Research and Management Science Society

- PLS-SEM and Bootstrap analysis were used to validate relationships and evaluate model significance.
- Tailored business strategies are needed based on income, household size, and region

Certificates

Oracle Cloud Platform Enterprise Analytics Professional
Oracle Autonomous Database Cloud Specialist
Oracle Cloud Infrastructure Architect Professional
Oracle Cloud Infrastructure Foundation Associate
Oracle Cloud Infrastructure Architect Associate