

# Minseok Oh

Bay Area, CA | 408-334-5898 | [ohmseok0524@gmail.com](mailto: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**

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**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**

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**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**

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**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**

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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