

# Youngwoo Kim

Seoul, KOR 06292 | +82-10-4492-0906 | ykim.harry@gmail.com | <https://www.linkedin.com/in/youngwoo98/>

## EDUCATION

### University of Wisconsin-Madison

Bachelor of Science in Computer Science, Data Science

Madison, WI

Graduation Date: May 2024

## WORK EXPERIENCE

### Samsung Electronics

Hwaseong, Gyeonggi-do

Software Engineer

Jun 2023 - Aug 2023

- Architected a dynamic web application for a Service Manager UI, reducing process time by 20% and streamlining product engineering with advanced configuration techniques and user-centric design principles
- Developed the client section of the Service Manager using React, Node.js, and JavaScript, enhancing system functionality and user interaction, which led to a 17% increase in client performance metrics
- Integrated client and server communications via RestAPI for the Service Manager, enabling robust command execution and improving operational efficiency by 28%
- Leveraged agile methodologies to lead cross-functional teams in developing a scalable software solution, cutting development time by 33% and enhancing team productivity

## PROJECT EXPERIENCE

### Real-Time News Collection and Analysis Platform

Daejeon, South Korea

Software Engineer

Mar 2025 - May 2025

- Built a full data pipeline that collects over 10,000 news articles daily via RSS feeds, streams them into Apache Kafka, and processes them with Apache Flink to extract top-5 keywords and 1536-dimensional embeddings per article
- Stored processed data in PostgreSQL, Elasticsearch, and HDFS, enabling <100ms search latency for recent articles and batch processing of 1M+ articles for weekly trend analysis
- Integrated LangChain with Exaone LLM to build a RAG-based chatbot capable of answering semantic queries with >85% relevance accuracy, leveraging vector similarity search over PGVector-enhanced PostgreSQL
- Designed and deployed a web dashboard using Django REST Framework and Vue.js, supporting JWT-based user authentication, personalized article recommendations, and visual analytics with real-time updates

### Mhia AI

Madison, WI

Machine Learning Engineer

Jan 2024 - Sep 2024

- Re-architected the system for real-time video data processing, resulting in a 20% reduction in processing time and a 15% improvement in model perception accuracy
- Developed and implemented a perception model using Computer Vision and LSTM to interpret continuous gestures from a real-time camera stream, achieving 93% accuracy in translating sign language to audio
- Enhanced model robustness and generalization performance by 23% by systematically experimenting with diverse model architectures and data augmentation techniques using TensorFlow

### Quokka

Madison, WI

Founding Software Engineer

Jan 2024 - Sep 2024

- Implemented and automated CI/CD pipelines, reducing manual testing time by 40% and production bugs by 80% through automated build, test, and deployment workflows, significantly enhancing productivity, code quality, and system stability
- Configured and optimized our cloud infrastructure to support the development environment, leading to a 33% improvement in application performance and a 60% reduction in system downtime through strategic resource management and scaling techniques
- Enhanced security and scalability of the project by containerizing the server and implementing API key management, resulting in improved overall system performance

## LEADERSHIP EXPERIENCE

### Korean Undergraduate Computer Science Union

Madison, WI

Vice President, Subteam Leader

Sep 2022 - May 2024

- Directed a team of data scientists and engineers to develop a cutting-edge computer vision project for a sign language voice translator using LSTM, resulting in an accuracy rate of 93%
- Organized and facilitated weekly meetings with the group of 50+ individuals to foster collaboration, resulting in a 40% increase in project completion rates

## SKILLS

**Skills:** AWS, GCP, Java, JavaScript, Python, C/C++, React, Node.js, gRPC, Docker, Spark, Kafka, Flink, HDFS, Airflow, MLflow, PostgreSQL, Cassandra, Distributed Systems, Operating Systems, Agile, PyTorch, Tensorflow, Machine Learning, Deep Learning, Computer Vision

**Certification:** AWS Certified Cloud Practitioner