

JIUK KIM

alex.jiuk.kim@gmail.com • +82 10 9590 2997 • github.com/ziweek • linkedin.com/in/ziweek

EXPERIENCE

8th Army (United States)

Pyeongtaek, South Korea

Sergeant, KATUSA (Korean Augmentation to The U.S. Army) Program, full-time

Jul. 2023 ~ Jan. 2025.

- Developed a bilingual Korean-English RAG chatbot for US and ROK Army regulations, supporting multi-document retrieval using LangChain, Ollama, FAISS, and Hugging Face.
- Built a database for an automated dashboard to improve KATUSA human resource management and operations
- Developed and managed web application for the USFK holiday with about 500 monthly active users and 6k events
- Chief of Staff of the Army Award in 2024 11th Republic of Korea Army Entrepreneurship Competition
- 1st Place in 2023 Jeju Island Satellite Data Utilization Competition
- Major General Award in 2023 10th Republic of Korea Army Entrepreneurship Competition

OneClean

Seoul, South Korea

Full-stack Developer, full-time

Jan. 2022 ~ Jun. 2023

- Built a full-stack web application, collaborating with designers, managers and stakeholders to deliver scalable solutions
- 1st Place Winner in 2023 Korea University Business School Start-up Express Winter Season

KU3DS, Korea University Makerspace

Seoul, South Korea

Frontend Developer, part-time

Jul. 2022 ~ Dec. 2022

- Developed a web page using Next.js, Tailwind CSS, Vercel to provide information for university festivals.

PROJECT

Military Guide Chatbot Utilizing RAG LLM

Seoul, South Korea

Chief of Staff of the Army Award in 11th Republic of Korea Army Entrepreneurship Competition

Feb. 2024 ~ Apr. 2024

- Developed using Nest.js, considering its suitability for implementing WebSocket to support asynchronous processing and enable LLM streaming functionality when communicating with a separate LLM server.
- Built using the Retrieval-Augmented Generation method with LangChain, Ollama, Mistral and Qdrant VectorDB, considering the limited amount of training data and insufficient GPU resources for fine-tuning.

Intelligent Platform for Long-Term Abandoned Vehicle Detection Utilizing Satellite Image

Seoul, South Korea

1st Prize Winner in 2023 Jeju Island Satellite Data Utilization Competition

Dec. 2023 ~ Jan. 2024

- Developed using the Java Spring Framework and RabbitMQ to ensure compatibility with the Korean e-government platform, enabling future scalability for ship and aircraft detection through a microservice architecture.
- Enhanced Small Object Detection model accuracy by 20% in mAP performance metrics, through integrating a Resolution-Enhancing Model as preprocessing pipeline, with implementing Weighted Boxes Fusion ensemble.

EDUCATION

GEORGIA INSTITUTE OF TECHNOLOGY (United States)

Vancouver, BC

Online Master of Science in Computer Science, Specialization Program in Machine Learning

Aug. 2024 / Present

- Graduated from the 2024 Google Machine Learning Bootcamp, showcasing Award-Factory by fine-tuning Google Gemma with SFTTrainer, PEFT, and LoRA to generate humorous citations from a limited volume of dataset.

KOREA UNIVERSITY (South Korea)

Seoul, South Korea

Bachelor in business administration, Concentration Track in Business Analytics

Mar. 2017 / Feb. 2024

- Founded the Business Analytics Research Student Club, instructing undergraduate students in artificial intelligence
- 3rd Place Winner in 2022 KU Smart Campus Data Hackathon
- 2nd Place Winner in 2022 Samsung x KU Future Eco-Friendly Home Appliances Idea Contest

CERTIFICATION & SKILL

- Engineer Big Data Analysis (Jul. 2024), Test of Practical Artificial Intelligence 2 (Nov. 2023)
- Languages: Python (expert), Java (proficient), C (academic experience), TypeScript (proficient), Swift
- Frameworks: Ollama, HuggingFace, LangChain, LangGraph / Spring, FastAPI / Docker, Jenkins / AWS(certificate)