

BEREKET ASSEFA

+8210-2187-9779 bereketsiyum@gmail.com Seoul, South Korea Portfolio

Education (More info)

- **Korea Advanced Institute of Science and Technology (KAIST)** Aug 2017 – Feb 2022
B.S. Electrical Engineering and Computer Science (Double Major) Daejeon, South Korea

Summary

Full Stack Software Engineer with a proven track record in designing scalable microservice architectures and optimizing system performance. Experienced in developing secure, cross-platform applications and automating complex workflows. Proficient in backend technologies, cloud platforms, and frontend frameworks. Committed to leveraging cutting-edge technologies to drive innovation, compliance, and efficiency.

Career (More Details)

- **Emocog Inc. (Website)** Aug 2022 – Dec 2024
Software Engineer Seoul, South Korea
 - Collaborated with Emocog's German subsidiary, **Cogthera**, to design and implement a scalable microservice-based backend, achieving **ISO 27001** compliance.
 - * Implemented **audit logging** using **PostgreSQL** triggers to enhance security and compliance tracking.
 - * Optimized real-time **speech-to-text** systems using **VOSK**, an open-source speech toolkit, and **gRPC**, reducing memory, CPU usage, and latency by **over 50%**.
 - * Deployed a self-hosted **Sentry** instance for robust error monitoring in the mobile application and implemented an asynchronous **Text-To-Speech** server.
 - * Created a real-time dashboard with **FastAPI** and **WebSockets** to aggregate and visualize data from various microservices.
 - Automated laboratory workflows by building a laboratory management system using **Next.js** and **Firestore**, replacing Excel sheets with a fully automated solution.

Projects (More Details)

- **AI-Powered Content Management System (Live Site) (Source Code)** 2024
Next.js Application
 - Developed a scalable **Next.js** content platform featuring **Tiptap** for rich-text editing, improving content creation speed and efficiency for users.
 - Integrated AI content generation via **Content Gen Server** and self-hosted the platform using **Docker** and **Coolify**.
 - Designed an intuitive user interface to enhance the content management experience.
- **Content Gen Server (Description) (Source Code)**
FastAPI Microservice
 - Built a robust **FastAPI** microservice for AI content generation, integrating **OpenAI** and **Flux**.
 - Implemented **role-based access control**, used **PostgreSQL**, **MinIO**, and **Redis** for efficient content management.
 - Deployed via **Docker Compose** and **Coolify**, ensuring seamless and efficient hosting.

Certifications (More Certifications)

- **PostgreSQL for Everybody Specialization** 2024
University Of Michigan

Technical Skills

- **Languages:** Python, Javascript/TypeScript, C/C++.
- **Backend:** FastAPI, PostgreSQL, NodeJS, REST APIs, gRPC, Firestore, Redis.
- **Frontend:** React, React Native, Next.js, Tailwind CSS, HTML/CSS.
- **DevOps & Cloud:** Docker, Docker Compose, Kubernetes, AWS, Google Cloud.
- **Tools:** Linux, Git, VSCode.