

CHEOLMIN OH

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EDUCATION

Boston University, Boston, MA

Expected May 19, 2024

BA in Computer Science

Relevant Coursework: Artificial Intelligence; Software Engineering; Algorithms; Operating Systems

PROFESSIONAL EXPERIENCE

BU Spark, Boston, MA

May 2023 – Jan 2024

Software Engineer Intern

- Automated backups and disaster recovery with Railway cloud, ensuring data integrity and operational continuity.
- Migrated 2 websites to Next.js and Vite.js using TypeScript, incorporating Zod for API schema validation.
- Developed RESTful API using Express.js, Next.js, and a headless CMS, integrated with PostgreSQL and Firebase.
- Updated CI/CD pipelines with GitHub Actions, cutting deployment time by 50% and boosting team productivity.
- Analyzed Firebase usage patterns and implemented optimization strategies, reducing resource usage by 17%.

Republic of Korea Air Force, Gyeryoung-si, South Korea

Sep 2020 – Jun 2022

Data System Engineer

- Reengineered legacy Java code to a RESTful architecture using Express.js, revitalizing 30+ inefficient APIs.
- Normalized a large database using MySQL, resulting in faster data retrieval, and reducing onboarding time by 50%.
- Revamped website using React, improving task tracking and resource management, boosting productivity by 22%.
- Designed Excel macros to optimize 5 labor-intensive processes, achieving a monthly time saving of 50+ hours.
- Facilitated meetings for senior officials, including 5-star generals and National Assembly audits of state affairs.

PROJECTS

My GenAI – Large Language Models

Jan 2024 – Present

- Introduced the Reasoning + Acting prompting technique and Agents to enhance interactions with external APIs.
- Leveraged Embeddings, Retrieval-Augmented Generation, and FAISS for efficient processing of long documents.
- Created 3 distinct product features utilizing LLMs, through Streamlit and LangChain (OpenAI, Llama2).
- Optimized the deployment with Azure Web App, Azure Blob Storage, Azure Key Vault, and GitHub Actions.

Spare-it: AI Waste Contamination Identifier

Jan 2024 – May 2024

- Fine-tuned YOLOv8 with customized hyperparameters, boosting detection precision to 52.7% across 20 labels.
- Balanced batches and used sampling methods to address class imbalances, improving accuracy by 16.2%.
- Utilized Albumentations and DCGAN for synthetic images, enriching training datasets and handle overfitting.
- Created a live demo of the model using Streamlit and Hugging Face, enhancing stakeholder presentations.

Bad Landlords

May 2023 – Jan 2024

- Initiated biweekly meetings with Boston City Council to shape web app development for public services.
- Implemented scripts to fetch, cleanse, and merge data from 5 APIs into PostgreSQL, aligning with our ERD.
- Generated qsub batch jobs for database updates, ensuring reliability and tracking for extended data tasks.
- Spearheaded Docker environments to standardize safe testing and deployment, ensuring project consistency.
- Cooperated closely with UI/UX designers using Figma to refine application interfaces, meeting client needs.

SKILLS

Front-end stack: JavaScript, TypeScript, React.js, Next.js, HTML, CSS, Tailwind CSS

Back-end stack: Python, Node.js, Express.js, Flask, Jest

Database: PostgreSQL, MySQL, MongoDB, Cloud Firestore, Prisma ORM

Other: LangChain, OpenAI, Llama2, Docker, Azure, TensorFlow, PyTorch, Trello, Slack, Figma

Languages: Korean (Native), English (Fluent)