Taelim Hwang

Software Engineer - FinTech, Platform, Web Service

Profile

Software Engineer focused on Back-end for 3 years. Interested in designing software architecture to increase efficiency. Knowledgeable in user interface, testing, and debugging processes. Proficient in various platforms, and languages especially on Python. Able to effectively self-manage during independent projects, as well as collaborate in a team setting.

Employment History

Chai Corporation.

June 2021 — Present

- Developed a Legacy Payment Platform and programmed new features for connecting PG Providers
- Maintained New and Legacy Payment Platform
- Designed New Microservices for a New Version of Payment Platform with gRPC
- Pre-developed a New Simple Pay

LG Electronics. Inc.

January 2019 — June 2021

- Developed Information Display Management Web Solution(ConnectedCare)
- Researched and developed New IoT Platform Web Service
- Operated Data Management and analyzed IoT Data to create new businesses
- Pre-developed Mobile version of ConnectedCare(PoC)

ES Planit June 2019 — September 2019

- Designed a core logic architecture for market price analysis platform using Koscom Open API
- Developed web platform for Stock market
- Migrated infrastructure AWS to Private Cloud Platform
- Operated infrastructure resource

Samsung Medical Center (Internship)

January 2018 — March 2018

- Shared tasks such as bioinformatics data preprocessing, and data analysis with R, Python, and Perl
- Developed Python automation tools for data collection

Project

Unified Payment System, Custom Pay - Chai Corporation

June 2022 — Present

Programming a simple server with socket(Kotlin) to communicate PGs and Card companies with dedicated lines.

- Became possible for the company to introduce a new payment method through the establishment of a dedicated line

Micro-service for New Payment Platform - Chai Corporation September 2021 — June 2022

Refactored from legacy PHP-based services to new services based on microservice architecture, which fully designed a new **Transaction Gateway Service** and **Credential Management Service** for PG Provider. The time to link a new PG provider has been reduced from **3 months to 1 month.** Parallel work is possible through microservices, increasing productivity.

- Created an interface and architecture from scratch for interconnecting **microservices using gRPC** to reduce latency between other internal services
- Programmed a server with **Springboot based on Kotlin** from legacy PHP based services to make programming much easier and to be supported by various modules

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Education

Korea University, Seoul

March 2011 — February 2019

B.S. in **Computer Science** and Biotechnology

Skills

Programming Languages

Python, TypeScript, Kotlin, Java, PHP, Golang, SQL

Framework/Tools

Spring, gRPC, Node.ts, Django, Flask, Docker

Languages

Korean(Native) English(Very good command)

Award-winnings

SoC Robot War

March 2018 — June 2018

Advanced to the finals with programming a Real-time location tracking program written in C++

IoT Innovation Challenge

June 2018 — October 2018

won an Excellence Award for Chicken Fries Automation Process linked with cooking tools written in **Python**

Extra-curricular Activities

KUCC(Korea University Computer Club)

September 2017 — February 2019

Participated in club activities at the university for studying Computer Science in a group

- A machine learning exercise for NLP
- Data structures
- Supported as a mentor for mentoring activities for juniors

Core System for Payment Platform(legacy) - Chai Corporation

July 2021 — November 2022

Added and maintained new features of the **CakePHP-based legacy server**. These features are currently used among the **top 3 major franchisees** in the company, with transaction volume occurring and operating stably.

- Acquired domain knowledge about payment services, able to stably proceed with design for new microservices

IoT Platform Service - LG Electronics. Inc.

June 2020 — April 2021

Developed an IoT Platform Service designed with **Serverless Framework** for inter-connecting with IoT Devices, controlling via Web Service, and targeting structures similar to IFTTT(to make chains of IoT devices). A lightweight server was quickly produced and configured for easy distribution, and the demonstration was conducted in a short time, which allowed it to proceed to **the commercialization stage.**

- Designed Service Core Engine through researching IPaaS service architecture. The team was able to create fastly whole services based on that
- Developed an app for External Service Inter-connection(Node.ts), deployed to Azure Function and AWS Lambda with Serverless Framework

Mobile Version for ConnectedCare Solution - LG Electronics. Inc. January 2021 — March 2021

Developed a New Mobile Website for LG ConnectedCare targeted on CS Teams to control remote devices with remote controller UI. When actual workers used it, it received good reviews for a much more comfortable UX and features necessary only for control.

- Developed and re-designed UI with React.ts

Data Pipeline for LG ConnectedCare - LG Electronics. Inc.

January 2020 — June 2020

Designed ETL Process of Raw Data generated by LG ConnectedCare solution including IoT device and network pattern. Developers can more easily access data and quickly analyze the imported data to derive meaningful insights with this platform. A task that previously took **more than 5 days has been reduced to 1 day.** Through the analysis of the internal thermal data of the device, it was possible to add a temperature management function through fan control.

- Built an analysis environment using **Jupyter notebook Server, MongoDB** for using raw data pre-processing **with Batch Scheduler(Python)** to Improve developer convenience through library abstraction
- Conducted data analysis through the environment built on the On-premise server

LG ConnectedCare Solution - LG Electronics. Inc.

March 2019 — June 2021

Developed New features for LG ConnectedCare Solution. User convenience is increased by adding new functions, by detecting defects and controlling LED remotely. Preemptive after service for the devices is enabled through the solution without directly seeing the defects that are difficult to check with the naked eye(at least 1 pixel error can be detected).

Developed a device replacement history page, which is to track the history of device position changes, allowing users to increase the convenience of overall management.

- Front-end (Added feature UIs, pages with Vue.js)
- Back-end (Added API to control devices via web services with **Python(Flask)**, modified **Stored Procedure for SQL Server**)

Maintained Service on Cloud environment with Azure Cloud, Azure Function, Azure PaaS Solutions and Blob Storage Service.

Pantis, Financial Information Service Platform - ES Planit

June 2019 — December 2019

Designed a core logic and infra for Market Price Analysis Platform using Koscom Open API. It reliably collects and pre-processes 40 million stock data every day, creating an environment that can be used directly for data analysis logic.

- Migrated from AWS to Koscom Cloud to improve security and maintained service features
- Building CI/CD has made deployment much easier to ensure scalable design
- Developed Stock Data Collector with Koscom Open API **(Python)**, Built pipelines with **SQL Server**
- Developed web platform(PoC) with Front-end(Vue.js) and Back-end(Django)

Depromeet(8th) at

June 2019 — December 2019

Participated in club activities purposed on creating side-projects with designers and developers

- Developed and planned a Space recommendation service for work (Back-end, Django), which is released in Google Play Store and App Store
- Built a infrastructure with **AWS CDK** for a second side-project, Meditation Service based on incenses and videos released in Google Play Store
- Studied Kubernetes and Clean Codes with books with group members