

JaeGyu Lee

SOFTWARE ENGINEER

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“prioritize efficiency while actively avoiding inaction.”

Summary

Current lead backend engineer at start-up company Onuii. 6+ years experience specializing in the backend development, infrastructure design, and data management. Always try to prioritize efficiency while actively avoiding inaction. My experience is defined with continuous activity and proactive Approach. Interested in ensuring consistency in distributed environment, and learning new technologies about data science.

Work Experience

Onuii(설텍)

Seoul, S.Korea

LEAD BACKEND ENGINEER

Mar. 2022 - Now

- Fostered team growth through one-on-one meetings, resulting in an average skill level increase across 14 team members.
- Deployed Kafka echo system with golang, including consumer proxy, producer, monitoring, to establish an event-driven architecture.
- Implemented a GraphQL gateway for efficient request handling to gRPC services, enhancing endpoint integration and caching. Customizing graphql-mesh, using explicit optional in protobuf3 to handle graphql nullable.
- Designed Data pipeline to make a data lake using AWS EKS, EMR, Trino, Databricks, Spark.
- Provisioned microservice infrastructure using AWS ECS, ECR, and Service Connect discovery, employing IaC tools like Packer and Terraform for seamless deployment.
- Transitioned from monolithic and serverless legacy systems to a microservice architecture using Kafka and gRPC for service discovery.
- Developed a teacher-student matching algorithm, leveraging AWS OpenSearch for data analysis based on sensitive student information.
- Introduced "Risk Search" as a proactive measure in the development process.
- Utilized Post-mortem analyses to create a historical knowledge base for domain-related issues.

Flatgarden

Seoul, S.Korea

CTO

Mar. 2020 - Mar. 2022

- Deployed "입시 고민 메신저 학학이" in App store and google play
- Built infrastructure utilizing Docker and Terraform with AWS ECS in AWS architecture and migrated legacy to ECS Fargate
- Designed real-time chat bot with Firebase Firestore for scalable service.
- Implemented modified scrum by using ZenHub, Notion to effectively communicate

Seoul National University of Science and Technology

Seoul, S.Korea

GRADUATE STUDENT RESEARCHER

May. 2019 - Feb. 2022

- Implemented TPC-C Benchmark (WAS, RTE, DB) on IBM DB2 using C, Golang with TTA (Telecommunications Technology Association)
- Developed an Intelligent (AI) Small Water Utility Integrated Management System with Kafka, Telegraf with Kafka Connect, InfluxDB, Grafana with Wonju-si
- Implemented a complete and fast Scraping method for collecting tweets with NSR (National Security Researcher Institute)

Hyundai-Medi

Seoul, S.Korea

SOFTWARE ENGINEER

DEC. 2018 - MAR. 2019

- Implemented Hospital and Pharmacy Search service using Python Django REST framework.
- Crawled medicine information

Playauto

Seoul, S.Korea

SOFTWARE ENGINEER

AUG. 2017 - NOV. 2018

- Implemented data scraping of E-Commerce service like Coupang, G-market for automating registering goods and inventory management
- Developed an inventory management system for enterprise customer

Education

Seoul National University of Science and Technology

Nowon, S.Korea

M.S. WITH DATABASE PERFORMANCE EVALUATION, BENCHMARK

Sep. 2021 - Aug. 2023

- Big Data Management and Application Lab, SeoulTech
- Research: Concurrency Control, Distributed transaction, Kafka

Seoul National University of Science and Technology

Nowon, S.Korea

B.S. IN COMPUTER SCIENCE AND ENGINEERING

Mar. 2019 - Aug. 2021

Papers

- | | | |
|------|--|----------------|
| 2023 | Supporting Distributed Transactions for Elasticsearch based on Two-Phase Commit Dwell Lock,
Graduate thesis - Seoul National University of Science and Technology | Seoul, S.Korea |
| 2022 | Data Pipeline for a Real-Time Water Management System with Time Series Prediction Model,
ICESI2022 (International Conference on Electric Vehicle, Smart Grid, and Information Technology 2022) | Seoul, S.Korea |
| 2022 | TPC-C Benchmarking for ElasticSearch, International Conference on Big Data and Smart Computing
(BIGCOMP) | Seoul, S.Korea |
| 2021 | A Complete and Fast Scraping Method for Collecting Tweets, International Conference on Big Data and
Smart Computing (BIGCOMP) | Seoul, S.Korea |

Presentation

Case studies of building MSA and BI in a distributed environment through AWS ECS, EKS, and EMR

Seoul, S.Korea

AWS KOREA EDUTECH COMMUNITY FORUM 2023

June. 2023

- [Edutech Community Form 2023 Detail Page](#)
- [Detail Description in korean](#)
- [Presentation Keynote](#)

Implementing a Simple and Easy Chat System in Golang with AWS DynamoDB

Daegu, S.Korea

DEVFEST 2023 GOLANG KOREA - GO TO DAEGU

DEC. 2023

- Hands on about chat system using channel and graphql subscription
- [DevFest 2023 Golang Korea Detail Page](#)

Extracurricular Activity

Prography - IT Community

Seoul, S.Korea

MENTOR

Aug. 2018 - FEB. 2020

- <https://prography.org/>
- Nodejs Mentor

Roubit - routine managing system

Seoul, S.Korea

LEADER

Mar. 2019 - JAN. 2020

- [Service homepage](#)
- Implemented routine managing service with NFC tags.

Roubit - Routine managing system

Seoul, S.Korea

BACKEND ENGINEER

Mar. 2019 - JAN. 2020

- [Service homepage](#)
- Implemented routine managing service with NFC tags.

PPLE - Blood donation project

Seoul, S.Korea

BACKEND ENGINEER

Mar. 2019 - JAN. 2020

- [Service homepage](#)
- Implemented Direct Blood Donation Process on service.