

## SUMMARY

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6+ years of programming experience. During the last 4 years, I worked in an AI startup and took the role of solving various technical problems in realizing AI solutions. Worked with application developers and ML engineers to develop ML pipelines and operate production services in cloud and on-premise environments.

## EXPERIENCE

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• **Skelter Labs (Conversational AI technology company)**  
*Software Engineer*

Seoul, Korea  
*Jun 2018 - Mar 2023*

### Speech to Text Solution

- Integrated Argo Workflows to the ML pipeline in order to **automate training and evaluating STT models** and integrated Katib for automatic hyperparameter tuning.
- **Implemented log processing pipelines** using Fluent Bit, Vector, and Elasticsearch to process, store, and serve audit logs and service logs on cloud and onprem deployments.

### Personalized Product Recommendation Solution

- **Developed the Web SDK** for signal collection and displaying recommendation widgets.
- Developed an ML pipeline from data processing to serving using Spark, Argo Workflows, and MLflow.
- Integrated OpenFlagr to the serving stack for **model A/B testing**.
- **Operated the service with minimum downtime** using open-source tools including Prometheus, Grafana Dashboards, PagerDuty, Slack.
- **Configured the business dashboards** by integrating the ELK stack.
- Analyzed performance bottlenecks by integrating Jaeger Tracing and **optimized the response times**.
- **Configured and maintained the dev and production environments on GCP with the IaC approach** using Terraform. I maintained the flexibility of going down into provider APIs for testing and troubleshooting while benefiting from the reproducibility of the IaC approach.
- Continuously monitored the status and utilization of cloud infra and performed **cloud cost optimization**.
- I **studied and implemented the current cloud security best practices** to ensure uninterrupted production, ranging in the activities of configuring network firewalls, access policies, data encryption at rest and in transit, backups, secrets management, and container image scanning.

### Audience Targeting Service PoC

- **Set up and operate Kubernetes cluster** to run Spark workloads to process ML data, and to serve Tensorflow models.
- **Integrated data from external services**, including Braze, Contentful, and BigQuery.

### Context-based Personalization Application

- Participated in developing **stream processing backend** using Apache Kafka Streams API.
- Configured dev and production environments on AWS, and **configured the test/release pipelines to streamline the development**.

• **KOKOMO Games (mobile game company)**  
*Client-side programmer*

Seoul, Korea  
*Jun 2016 - May 2018*

- Developed game contents in Unreal C++ and Blueprint.
- Configured a CI system for automated mobile build (iOS and Android) and QA deployment, which greatly streamlined the build process. Up to 10+ builds a day.
- Integrated third-party libraries for user session and authentication functions for iOS and Android.
- Maintained custom engine modifications and integrated upstream updates using Git.

## EDUCATION

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- **Korea Advanced Institute of Science and Technology** Daejeon, Korea  
*B.Sc. in Computer Science* *2006 – 2012*
  - **Intern in the Collaborative Distributed Systems & Networks Lab:** Developed a prototype Android app that can recognize learned objects through built-in camera, using the OpenCV library.
  - **Thesis:** Implemented a Predictive-corrective incompressible SPH for Realistic Fluid Simulation using the OpenCL API, utilizing parallel processing.

## PROFESSIONAL SKILLS

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- **Experience in backend development** using Python, Go, SQL, Kafka, MongoDB, Docker, Elasticsearch.
- **Experience in operating services on cloud:** GCP, AWS, networking, Terraform, Kubernetes, Prometheus, Fluent Bit.
- **Experience in machine learning projects** using Apache Spark, scikit-learn, Tensorflow, Keras, Argo Workflows.
- **Mid-level Industry Skills:** I can write testable and efficient code, have sufficient computer science knowledge.
- **Language skills:** Native in Korean. I can write and converse in English at a functional level.

## CERTIFICATIONS

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- TOEIC: score 990 (Listening 495, Reading 495), Speaking Level 6 (score 150) (2019)
- Test of English Proficiency developed by Seoul National University (TEPS): grade 1+, score 969 (2016)
- Engineer Information Processing by the Human Resources Development Service of Korea (2013)