

# Kyungho Byoun

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Software developer expertise in large scale data engineering. Passionate about building data-driven products from 0 to 1.

## EXPERIENCE

### Software Developer

Apr 2024 – Present

SAP

Seoul, South Korea

- Architected and implemented a petabyte-scale observability microservice aggregating telemetry from **60** global regions and **375** Kubernetes clusters into a unified Delta Lake using Spark and HANA Data Lake Files.
- Designed end-to-end data pipelines serving worldwide teams with 30+ tables and growing, enabling previously impossible analyses such as Major Upgrade Window downtime tracking across pod lifecycle events.
- Built an LLM-powered analytics chatbot with RAG for natural language querying of observability data. Achieved **41.6%** accuracy on complex internal NL-to-SQL benchmarks tailored to business context.

### Intern

Jul 2023 – Apr 2024

SAP

Seoul, South Korea

- Designed and implemented a PoC using Istio service mesh to enable local-remote cluster integration. Submitted for US patent as the primary contributor.
- Built an automated testing framework that for HANA DB, identifying **11** bugs in production versions.

### Undergraduate Researcher

Jul 2022 – Jun 2023

KAIST Augmented Reality Research Center

Daejeon, South Korea

- Designed and implemented a 5-stage sleep estimation algorithm for smart mattress integration using digital signal processing in MATLAB and Python.
- Iterated through testing with 5 participants from Kyung Dong Navien; achieved only **5.61%** difference compared to Galaxy Watch (ECG-based) benchmark.

## EDUCATION

### Korea Advanced Institute of Science and Technology (KAIST)

Daejeon, South Korea

Bachelor of Engineering in Computer Science, Aerospace Engineering

Mar 2017 – Feb 2024

## PROJECTS

### [branchy.io](#)

Ongoing

Side Project

- Building an ideation platform that visualizes ideas in graph with LLM-powered understanding and enhancement.

### [NASA Space Apps Challenge](#)

2025

Honorable Mention

- Developed risk analysis of Korean west/east coast power plants based on SAR dataset.

### [Google Solution Challenge](#)

2023

Global Top 100, Team Lead

- Developed a real-time scam detection application using BERT and Google Cloud, aimed at protecting socially disadvantaged individuals.

### KAIST App Startup Competition

Jul 2022 – Dec 2022

\$5,500 Award, Team Lead

- Proposed solutions and business strategies to address the supply and demand imbalance in the carbon credit market.

### Open Source Contributor

Lifelong

Agno, Langchain, SQL Metadata

## SKILLS

**Professional:** Python, Spark, Delta Lake, Kubernetes   **Proficient:** React

## LANGUAGES

**Korean:** Native Proficiency   **English:** Professional Working Proficiency