

WORK EXPERIENCE

Jul 2021
~ present

HYPERCONNECT, Machine Learning Software Engineer Seoul, Korea

Azar 1:1 matchmaking recommender system (Oct 2022 ~ Present)

- Project summary: Developing machine learning based recommender system on Azar 1:1 video chat, which is the core feature in Azar.
- Roles: Backend system design and feature development.
- Results: KPI (chat duration & user retention) increased.

Feature Store for ML (Jun 2022 ~ Mar 2023)

- Project summary: Built in-house feature store platform for ML apps to reduce training-serving data skew and to improve productivity.
- Roles: Project lead, system design, and feature development.
- Results: Integrated with various ML applications including recommender systems and moderation systems, and showed productivity improvements after integration.
- Etc: Talk at DEVVIEW 2023 [c.1]

Machine learning system for community health (Apr ~ May 2022)

- Project summary: Improved community moderation system that quickly detects users who violate community health guidelines in Azar.
- Roles: Backend feature development and data analysis.
- Results: Decreased number of abusers in Azar.

Live-streaming recommender system (Jul 2021 ~ Sep 2022, Apr 2023 ~ Present)

- Project summary: Applied machine learning based multi-tenant live-streaming recommender system to Azar Live and Hakuna Live.
- Roles: Backend system design, feature development, data analysis, and frontend development for in-house admin.
- Results: KPI (live-room watching time) increased.

Jul 2020
~ Sep 2020

NAVER Corp, Software Engineer Intern Seongnam, Korea

In-house deep learning model portal for AI research scientists

- Project summary: Designed and developed a deep learning model management portal for AI research scientists to increase research productivity and to reduce GPU cost.
- Roles: Backend & frontend system design and feature development.
- Results: All team members (N < 10) used the portal system.

In-house vision model training codebase development

- ***Project summary:*** Developed the in-house vision model training codebase (PyTorch) and built an automated testing environment specialized for the ML code.
- ***Roles:*** ML modeling code improvements within guide of the team leader.
- ***Results:*** Reduced wasted time when running training code, improved CI pipeline.

* Review post after the internship (Korean): <https://prev.github.io/posts/AI-SWE-Internship/>

Feb 2019
~ Jul 2019

JENNIFERSOFT, Frontend Software Engineer Intern

Paju, Korea

Monitoring solution for frontend developers

- ***Project summary:*** Developed performance monitoring solution for frontend developers. (<https://front.jennifersoft.com/about>)
- ***Roles:*** Developed frontend part of the product within guide of a senior engineer.
- ***Main features:*** Real-time dashboard, large-scale table, admin, theme management system.
- ***Results:*** Product quality improvements.

Jan 2015
~ Dec 2018

Freelancer Software Engineer

Seoul, Korea

- Developed various websites and web applications.

EDUCATION

Sep 2019
~Aug 2021

M.S. in Computer Science, KAIST

Daejeon, Korea

- GPA: 4.0 / 4.3
- Advisor: Sunghee Choi
- Thesis: *Progressive Transmission and Inference of Deep Learning Models Served over Network* (Extended work on [p.2])

Mar 2015
~Aug 2019

B.S. in Computer Science, Hanyang University

Seoul, Korea

- GPA: 3.97 / 4.5

SOFTWARE DEVELOPMENT SKILLS

Language	Python , Kotlin, Scala, TypeScript, JavaScript, Go [†]
Backend	FastAPI , Apache Flink (streaming), Spring, Express [†]
Web Frontend	React, SASS, Webpack, jQuery
Database	Cassandra (ScyllaDB), MySQL, Redis, DynamoDB [†] , MongoDB [†]
DevOps	AWS, Kubernetes, Grafana, Prometheus, Opentelemetry
ML/Data	BigQuery , Airflow, Kubeflow, PyTorch [†]

†: little experience
Bold: main stack

PUBLICATIONS

- [p.2] **Youngsoo Lee**, Sangdoo Yun, Yeonghun Kim, and Sunghee Choi, "**Progressive Transmission and Inference of Deep Learning Models**", *20th IEEE International Conference on Machine Learning and Applications (ICMLA)*, 2021
<https://arxiv.org/abs/2110.00916>
- [p.1] **Youngsoo Lee** and Sunghee Choi, "**A Greedy Load Balancing Algorithm for FaaS Platforms**", *5th International Conference on Cloud and Big Data Computing*, 2021
<https://dl.acm.org/doi/10.1145/3481646.3481657>

INVITED TALKS / CONFERENCES

- [c.1] 실시간 추천 시스템을 위한 **Feature Store** 구현기, **DEVVIEW 2023**
<https://devview.kr/2023/sessions/536>

Last update: Jul 26, 2023