Youngsoo Lee

Software Engineer

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🏢 WORK EXPERIENCE

Jul 2021
~ present

Hyperconnect, Machine Learning Software Engineer
Seoul, Korea

Azar 1:1 matchmaking recommender system *(Sep 2022 ~ Present)*
- Developing machine learning based recommender system on Azar 1:1 video match, which is the core feature in Azar.

Feature Store for ML *(Jun 2022 ~ Oct 2022)*
- Built in-house feature store platform for ML apps to reduce training-serving data skew and to improve productivity.
- Integrated with various ML applications including recommender systems and moderation systems, and showed immediate model performance improvements after integration.
- Project lead. Solely designed and implemented all the system.

Machine learning system for community health *(Apr 2022 ~ May 2022)*
- Maintained and improved backend part of the community moderation system that quickly detects user who violate community health guidelines in Azar.

User search system *(Jan 2022 ~ Apr 2022)*
- Developed elasticsearch based multi-tenant user search system used in Azar Live, Hakuna Live, and Hyperconnect Enterprise.
- Implemented backend part and designed the system with event-driven architecture.

Live-streaming recommender system *(Jul 2021 ~ Oct 2022)*
- Developed machine learning based multi-tenant live-streaming recommender system applied in Azar Live, Hakuna Live, and Hyperconnect Enterprise.
- Mainly participated in backend part of the project: Implemented ML model-based recommender system (ranking engine), a/b testing component, multi-tenant data management logic, real-time vision feature pipeline, in-house admin, etc.
- Led the project from Feb 2022 (two other engineers were in the project).
- Also performed data analysis to improve the machine learning performance.

Jul 2020
~ Sep 2020

NAVER Corp, Software Engineer Intern
Seongnam, Korea
- *(1)* Designed and developed a deep learning model management service for AI research scientists to increase ML research productivity.
- *(2)* Developed the in-house ML training codebase (PyTorch-based) and built an automated testing environment specialized for the ML code. Also participated in the development of various ML pipelines to improve research productivity.
- Review post (Korean): https://prev.github.io/posts/AI-SWE-Internship/

Feb 2019 ~ Jul 2019	**JENNIFERSOFT, Frontend Software Engineer Intern** Paju, Korea

- Developed a performance monitoring solution for frontend developers. (https://front.jennifersoft.com/about)
- Contributed to the frontend part of the product (real-time dashboard, large-scale table, admin, and theme management system).

Jul 2018 ~ Aug 2018	**Ratchet Cloud, Software Engineer Intern** Vancouver, Canada

- Designed and developed a game forum system as an open-source project with Express and React along with the test codes (88% coverage on the backend part). (http://github.com/h8tch-innovations/powerforums).

Jan 2015 ~ Jun 2016	**Freelancer Software Engineer**

- 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 publication [2])

Mar 2015 ~Aug 2019	**B.S. in Computer Science, Hanyang University** Seoul, Korea

- GPA: 3.97 / 4.5
- Activities and societies: Algorithm Research Club

Mar 2012 ~Feb 2015	**Korea Digital Media High School** Ansan, Korea

💻 SOFTWARE DEVELOPMENT SKILLS

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

[†] Little experience

📜 PUBLICATIONS

[2]   **Youngsoo Lee**, Sangdoo Yun, Yeonghun Kim, and Sunghee Choi, "**Progressive Transmission and Inference of Deep Learning Models**", 2*0th IEEE International Conference on Machine Learning and Applications (ICMLA),* 2021
https://arxiv.org/abs/2110.00916

[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

🗂️ OTHER EXPEIENCE AND ACTIVITIES

Jul 2016 ~ Oct 2017	**SW Maestro Program**
	Seoul, Korea

- A program operated by Korean government to promote best software engineers and entrepreneurs.
- Awarded as top 8 teams among 33 teams, presented at the "100+ Conference" hosted by Ministry of Science and ICT, and signed MOU with 3 companies based on the technology.

💡 INDIVIDUAL PROJECTS

Feb 2012 ~ Present	**Color Scripter**
	https://colorscripter.com

- Online code syntax highlighting service that helps developers upload their code to their blogs or websites with high readability.
- 10~20k visitors per month, 500+ plugins made by users, 150+ donators supporting this service.
- Implemented with Python, JavaScript, and MySQL along with the test codes (72% coverage on the backend part).

Last update: Dec 4, 2022