Youngsoo Lee

Software Engineer
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🏢 WORK EXPERIENCE

Jul 2021
~ present

Hyperconnect, Machine Learning Software Engineer
Seoul, Korea

- Do every engineering task to make machine learning technologies to impact in production. Building microservices, constructing pipelines, and design system for/with machine learning models.
- Currently building real-time recommender system with ML technology.

Jul 2020
~ Sep 2020
(3 months)

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
(6 months)

JENNIFERSOFT, 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 using React/TypeScript and led two side projects including component separation using Storybook and automated simulations for demo using Docker and Selenium.

Jul 2018
~ Aug 2018
(2 months)

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)

🏛 EDUCATION

Sep 2019
~Aug 2021

M.S. in Computer Science, KAIST
Daejeon, Korea

- GPA: 4.0 / 4.3
- Advisor: Sunghee Choi

Mar 2015
~Aug 2019

B.S. in Computer Science, Hanyang University
Seoul, Korea

- GPA: 3.97 / 4.5

Mar 2012
~Feb 2015

Korea Digital Media High School
Ansan, Korea

🖥 SOFTWARE DEVELOPMENT SKILLS

Languages	Python, JavaScript, TypeScript, Scala, Golang[†], Java[†], C++[†]
Backend	FastAPI, Flask, Express[†], Flink (streaming)
Web Frontend	React/Redux, AngularJS[†], SASS, Webpack, jQuery
Database	MySQL, Cassandra, DynamoDB[†], MongoDB[†], Redis
DevOps	Docker, AWS, Kubernetes[†]
ML/Data	PyTorch[†], TensorFlow[†], BigQuery

[†] Little experience

📔 PUBLICATIONS

[p.4]   **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

[p.3]   **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

[p.2]   **Youngsoo Lee** and Sunghee Choi, "**Accelerated Parallel Ray Tracing using Cloud**", *Korea Software Congress (KSC) 2020*
https://www.dbpia.co.kr/journal/articleDetail?nodeId=NODE10529850

[p.1]   **Youngsoo Lee** and Sunghee Choi, "**Progressive Compression of Neural Networks using Quantization**", *Korea Computer Congress (KCC) 2020*
https://www.dbpia.co.kr/journal/articleDetail?nodeId=NODE09874583

🧰 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 **[a.2]**, presented at the "100+ Conference" hosted by Ministry of Science and ICT, and signed MOU with 3 companies based on the technology.

Mar 2015
~ Jun 2016

ALOHA - Algorithm Research Club at Hanyang University
Seoul, Korea
- Carried out advanced studies of algorithms and challenged to various algorithm competitions. **[a.1][a.4]**

💡 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).
- *Contribution: 100%*

**Dec 2019
~ Mar 2020**

HotFunctions: A micro FaaS Framework
https://github.com/Prev/HotFunctions

- A Micro FaaS(Function-as-a-Service) framework for research to test performance of load balancing algorithms in FaaS.
- Implemented with Golang and Docker, and adopted various techniques proposed in recent studies to improve FaaS performance.
- Used in a study **[p.3]** proposing a new FaaS load balancing algorithm.
- *Contribution: 100%*

**Mar 2018
~ Oct 2018**

K-React: Korea's trend topic and reaction analysis service
https://github.com/Prev/kreact

- Public opinion analysis service that allows identifying whether the policies or marketing plans are going in the right direction by visualizing public opinion in real time.
- Implemented with Python, AngularJS, and Redis along with the NLP and text mining techniques.
- Graduation project at Hanyang University with one other team member **[a.5]**.
- Contribution: *60%*

**Jan 2017
~ Oct 2017**

Memento
https://get.prev.kr/memento_presentation.pdf (19MB)

- A project from SW Maestro Program, which collects data scattered on the Internet, and analyzes to the meaningful information through AI technology to tell the life of the famous people.
- Participated as a team leader with 2 other mentees and a mentor.
- Developed the frontend part and designed a scalable architecture of backend view part on the project.
- *Contribution: 33%*

🏆 AWARDS

[a.5]	1st place in Graduation Project Exhibition at Hanyang Univ. Department of Computer Science	Nov 2018
[a.4]	5th place in 5th Algorithm Competition's advanced division at Hanyang Univ.	Nov 2018
[a.3]	Award for excellent records (supported by AhnLab) in 8th TOPCIT	Dec 2017
[a.2]	Selected as a one of the top teams from 7th SW Maestro Program (30,000,000₩ reward per team)	Oct 2017
[a.1]	1st place in 2nd Algorithm Competition's beginner division at Hanyang Univ.	Nov 2015

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