Youngsoo Lee

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🏫 EDUCATION

Sep 2019 ~Aug 2021 *(expected)*	**Korea Advanced Institute of Science and Technology (KAIST)** Daejeon, Korea • Candidate for M.S. in Computer Science • Advisor: Sunghee Choi • GPA: 4.0 / 4.3
Mar 2015 ~Aug 2019	**Hanyang University** Seoul, Korea • B.S. in Computer Science • GPA: 3.97 / 4.5
Mar 2012 ~Feb 2015	**Korea Digital Media High School** Ansan, Korea

🏢 WORK EXPERIENCE

Jul 2020 ~ Sep 2020 (3 months)	**NAVER Corp (Clova AI Research),** *Software Engineering Intern* Seongnam, Korea • Participated as an engineer at AI research team, aiming to increase research productivity and quality of the ML code. • *(1)*: Designed and developed a model management service for researchers to increase machine learning research productivity – A novel hash-based system to prevent duplication of the models and integrated with the finetuning and transfer learning pipelines. Implemented with Python(SDK/CLI), React, Flask, and MongoDB. • *(2):* Developed the in-house ML code (visual backbone) and built an automated testing environment specialized for the ML code. Also participated in the development of various ML pipelines to improve research productivity. • *(*)* Conducted research on ML model deployment **[p.4]** after the internship with a researcher from the team. • Review post (Korean): https://prev.github.io/posts/AI-SWE-Internship/
Feb 2019 ~ Jul 2019 (6 months)	**JENNIFERSOFT,** *Software Engineering 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 Engineering 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)

🖥 SOFTWARE DEVELOPMENT SKILLS

Languages	Python, JavaScript, TypeScript, Golang†, Java†, C++†
Backend	Flask, Express† AWS (EC2, S3, Lambda, etc)
Web Frontend	React/Redux, AngularJS† SASS, Webpack, jQuery
Database	MySQL, DynamoDB†, MongoDB†, Redis†
DevOps	Docker, Jenkins, Shell Script, Nginx, TravisCI, CircleCI
ML	PyTorch†, TensorFlowJS† (Capable for communicating with machine learning scientists)
Others	Familiar with Git and writing testing codes/documentations

† Little experience

📜 PUBLICATIONS

[p.4]   **Youngsoo Lee**, Sangdoo Yun, and Sunghee Choi, *"Progressive Transmission and Inference of Deep Learning Models"*, Preprint, 2021
https://get.prev.kr/papers/preprint/progressivenet.pdf

[p.3]   **Youngsoo Lee** and Sunghee Choi, *"A Greedy Load Balancing Algorithm for FaaS Platforms"*, To be appeared at 5th International Conference on Cloud and Big Data Computing, 2021
https://get.prev.kr/papers/preprint/faas_lb.pdf

[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%*

Jan 2013
~ Nov 2013

High School Intranet System Development Project
https://github.com/Prev/intranet

- Developed an intranet system used in the high school autonomously by students ourselves, which operated for 2 years.
- Designed our own MVC framework and developed 10+ features with modularization. Implemented with PHP, JavaScript, and MySQL.
- Participated as a technical lead with ten other student developers.
- *Contribution: <20%*

🏆 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 |

📰 PRESS

News H (Hanyang University), Student Interview

Color Scripter, an Individual Project Created by a Middle Schooler (English article) | May 27, 2019

http://www.hanyang.ac.kr/surl/YF25

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