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 International Journal of Future Computer and Communication (IJFCC), 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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