

EXPERIENCE

- **Amazon** Vancouver, Canada
Software Development Engineer Sep. 2021 – Present
 - **ATROPS Config Management Team:** Working on Supply Chain Optimization Technologies (SCOT) organization. Our team develops tools for automating the modeling of the transportation networks.
 - **Validation rules performance optimization:** Optimized two validation rules by removing duplicated calls using caching. Validation time reduced from 5 hours to 1.5 hours and 12 hours to 20 minutes for each rules.
- **NAVER Corp.** Seongnam, South Korea
Software Engineer, Big Data & AI Platform Sep. 2018 – Sep. 2021
 - **DevOps Logiss:** Logiss is an ELK stack for large scale search logs. It consisted with six clusters of over 1000 nodes deployed in Korea/Japan region.
 - **Logstash performance optimization:** Testing and profiling Logstash on log-pipelining system. More than 100% improvement on throughput by adjusting GC parameters and Grok timeout.
- **NEXON Korea** Seongnam, South Korea
Software Engineer, Data Infrastructure Development Team, Intelligence Labs Jan. 2017 - Aug. 2018
 - **NxLog converter:** Converts JSON file to structured Apache Parquet format. This app has automatic schema detecting and updating system. Fully dockerized and auto-scaled on AWS.
 - **Fluentd optimization:** Optimized Fluentd on log-pipelining system by profiling and adjusting the app/kernel parameters. With RSS(Receive Side Scheduling), About 30% improvement on throughput is achieved
 - **Fluentd TCP monitoring plugin:** Developed monitoring plugin which shows TCP connection metric with event count per source address
 - **Building Elasticsearch ingest pipeline:** Designed Elasticsearch pipeline and built on AWS with Kinesis and EC2.
- **ITRI (Industrial Technology Research Institute)** Hsinchu, Taiwan
Intern, CCMA (Cloud computing Center for Mobile Application) Jul. 2014 - Aug. 2014
 - **Auto-ballooning:** Implemented auto-ballooning in QEMU-KVM. Performance testing was also completed.

EDUCATION

- **Ulsan National Institute of Science and Technology (UNIST)** Ulsan, South Korea
M.S. in Computer Science and Engineering (CSE) Mar. 2015 – Feb. 2017
- **Ulsan National Institute of Science and Technology (UNIST)** Ulsan, South Korea
B.S. in Computer Science and Engineering (CSE) Mar. 2011 – Feb. 2015

PUBLICATIONS

- **Jaewon Kwak**, Eunji Hwang, Tae-kyung Yoo, Beomseok Nam, and Youngri Choi "In-memory Caching Orchestration for Hadoop", In Proceedings of the 16th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing (**CCGRID 2016**)
- Youngmoon Eom, Jinwoong Kim, Deukyeon Hwang, **Jaewon Kwak**, Minho Shin, Beomseok Nam "Improving Multi-dimensional Query Processing with Data Migration in Distributed Cache Infrastructure", 21st IEEE International Conference on High Performance Computing (**HiPC 2014**)

AWARDS

- *Finalist*, HPCAC-ISC 2014 Student Cluster Challenge Jun. 2014
- *Finalist*, Asia student Supercomputing Challenge Apr. 2014
- *Finalist*, Asia student Supercomputing Challenge Apr. 2013