

EDUCATION

Seoul National University, Seoul, South Korea

Ph.D. Candidate in Department of Computer Science and Engineering

Mar 2014 - Present

Advisor: Prof. Byung-Gon Chun

B.S. in Department of Computer Science and Engineering

Mar 2007 - Feb 2014

WORK EXPERIENCE

Seoul National University, Seoul, South Korea

Mar 2014 - Present

Research Assistant, Software Platform Lab

I have studied and built large-scale data processing systems, recently focusing on Machine Learning (ML) training and inference workloads. I engaged in open source activities in the Apache Software Foundation.

Microsoft, Redmond, WA, USA

Jun 2017 - Sep 2017

Research Intern, Cloud and Information Services Lab (CISL)

I designed and built a prediction serving system for ML pipelines (named PRETZEL) and evaluate the system with production-scale workloads. This research was published in OSDI '18.

Microsoft Research Asia, Beijing, China

Sep 2015 - Feb 2016

Research Intern, Systems Research Group

I participated in the Pado project, a data processing system for handling transient resources (EuroSys '17).

Apache REEF

Sep 2014 - Present

Project Management Committee (PMC)

I am one of the committee members of the Apache REEF. I worked as the release manager of REEF v0.14.

PUBLICATIONS

- W.-Y. Lee, **Y. Lee**, J. S. Jeong, G.-I. Yu, J. Y. Kim, H. J. Park, B. Jeon, W. Song, G. Kim, M. Weimer, B. Cho, B.-G. Chun. Automating System Configuration of Distributed Machine Learning. ICDCS 2019.
- **Y. Lee**, A. Scolari, B.-G. Chun, M. Weimer, M. Interlandi. From the Edge to the Cloud: Model Serving in ML.NET. IEEE Data Engineering Bulletin, December 2018.
- **Y. Lee**, A. Scolari, B.-G. Chun, M. D. Santambrogio, M. Weimer, M. Interlandi. Opening the Black Box of Machine Learning Prediction Serving Systems. OSDI 2018.
- **Y. Lee**, A. Scolari, M. Interlandi, M. Weimer, B.-G. Chun. Towards High-Performance Prediction Serving Systems. NIPS ML Systems Workshop 2017.
- A. Scolari, **Y. Lee**, M. Weimer, M. Interlandi. Towards Accelerating Generic Machine Learning Prediction Pipelines. ICCD 2017.
- Y. Yang, G.-W. Kim, W. W. Song, **Y. Lee**, A. Chung, Z. Qian, B. Cho, B.-G. Chun. Pado: A Data Processing Engine for Harnessing Transient Resources in Datacenters. EuroSys 2017.
- B.-G. Chun, T. Condie, Y. Chen, B. Cho, A. Chung, C. Curino, C. Douglas, M. Interlandi, B. Jeon, J. S. Jeong, G.-W. Lee, **Y. Lee**, T. Majestro, D. Malkhi, S. Matushevych, B. Myers, M. Mykhailova, S. Narayanamurthy, J. Noor, R. Ramakrishnan, S. Rao, R. Sears, B. Sezgin, T.-G. Um, J. Wang, M. Weimer, Y. Yang. Apache REEF: Retainable Evaluator Execution Framework. ACM Transaction of Computer Systems, October 2017.
- B.-G. Chun, B. Cho, B. Jeon, J. S. Jeong, G. Kim, J. Y. Kim, W.-Y. Lee, **Y. S. Lee**, M. Weimer, G.-I. Yu. Dolphin: Runtime Optimization for Distributed Machine Learning. ICML ML Sys. Workshop 2016.
- M. Weimer, Y. Chen, B.-G. Chun, T. Condie, C. Curino, C. Douglas, **Y. Lee**, T. Majestro, D. Malkhi, S. Matushevych, B. Myers, S. Narayanamurthy, R. Ramakrishnan, S. Rao, R. Sears, B. Sezgin, J. Wang. REEF: Retainable Evaluator Execution Framework. SIGMOD 2015.
- J. S. Jeong, W.-Y. Lee, **Y. Lee**, Y. Yang, B. Cho, B.-G. Chun. Elastic Memory: Bring Elasticity Back To In-Memory Big Data Analytics. HotOS 2015.