Beomyeol Jeon

Contact Information 3111 Thomas M. Siebel Center 201 North Goodwin Avenue Urbana, IL 61801

bi2@illinois.edu () in beomyeol

Research Interests

EDUCATION

Distributed Systems, Cloud Computing, Machine Learning, Non-volatile Memory

University of Illinois Urbana-Champaign, Urbana, IL, USA Aug 2016 – present Ph.D. Student in Computer Science

Seoul National University, Seoul, Korea

Mar 2008 - Feb 2016

B.S. in Computer Science and Engineering (summa cum lauda)

The University of Texas at Austin, Austin, TX, USA

Jan 2015 - May 2015

Undergraduate Exchange Student in Computer Science

Research EXPERIENCE

Distributed Protocols Research Group, UIUC

Aug 2016 – present

Graduate Research Assistant

- Advisor: Prof. Indranil Gupta
- Working on a new fault tolerance technique in distributed machine learning systems.
- Working on the improvement of distributed systems by utilizing non-volatile memory (NVM)

Cloud and Mobile Systems Lab, Seoul Nat'l University Jul 2015 – June 2016 Undergraduate Research Intern

- Advisor: Prof. Byung-Gon Chun
- Designed and implemented a deep neural network module for **Dolphin**, an open-source distributed machine learning platform built on top of Apache REEF
- Worked on the performance modeling and an optimization tool to determine an optimized configuration for a distributed machine learning system

Database Systems Lab, Seoul Nat'l University

Sep 2014 - Dec 2014

Undergraduate Research Intern

- Advisor: Prof. Bongki Moon
- Worked on the performance improvement of H-Store, a distributed in-memory database, with NVMe SSD
- Worked on the performance improvement of MongoDB for trajectory data

Work EXPERIENCE Somansa Inc., Seoul, Korea

Jan 2011 - Dec 2013

Researcher

- Supervisors: Mr. Taewan Kim and Mr. Hwancheol Lim
- Developed a network data loss prevention (DLP) solution Mail-i and a database audit and protection (DAP) solution **DB-i** by analyzing network packets

OTHER EXPERIENCE Google Korea, Seoul, Korea

Sep 2011 – Aug 2012

Student Ambassador

Participated in hosting Google Developers University Hackathon Korea 2012

PUBLICATIONS

[3] (Under submission) Yunseong Lee, Woo-Yeon Lee, Joo Seong Jeong, Gyeong-In Yu, Joo Yeon Kim, **Beomyeol Jeon**, Gunhee Kim, Markus Weimer, Brian Cho, Byung-Gon Chun. Dolphin: Automated System Configuration of Distributed Machine Learning. USENIX ATC '17, July 2017.

- [2] (Accepted with minor revisions) Byung-Gon Chun, Yingda Chen, Brian Cho, Andrew Chung, Tyson Condie, Carlo Curino, Chris Douglas Matteo Interlandi, Beomyeol Jeon, Joo Seong Jeong, Gye-Won Lee, Yunseong Lee. Apache REEF: Retainable Evaluator Execution Framework. ACM Transactions on Computer Systems (TOCS), 2017.
- [1] Byung-Gon Chun, Brian Cho, **Beomyeol Jeon**, Joo Seong Jeong, Gunhee Kim, Joo Yeon Kim, Woo-Yeon Lee, Yun Seong Lee, Markus Weimer, Gyeong-In Yu. Dolphin: Runtime Optimization for Distributed Machine Learning. ICML ML Sys '16 workshop, June 2016.

Awards & Honors

The National Scholarship for Science and Engineering

2008 - 2010, 2014, 2015

Outgoing Exchange Student Program Scholarship

Spring 2015

• \$2,000 funded by the Office of International Affairs at Seoul National University

Computer Skills

Languages and techniques

- C, C++, Java, Python, CUDA, OpenCL
- Apache Maven, CMake, Unix Makefile

Tools

• Apache Hadoop/YARN, Apache REEF, Apache Spark, TensorFlow