Bongjun Kim

Curriculum Vitae

CONTACT INFORMATION

Department of Computer Science and Engineering
POSTECH
ChungAm-Ro 77
Pohang, South Korea, 790-784

+82-010-4110-9412
bong90@postech.ac.kr
bongjun@corelab.or.kr
http://www.corelab.or.kr/˜bongjun

EDUCATION

Pohang University of Science and Technology (POSTECH), Pohang, Republic of Korea
Integrated M.S./Ph.D. Student, March 2016 - Present
   Advisor: Prof. Hanjun Kim

Pohang University of Science and Technology (POSTECH), Pohang, Republic of Korea
Bachelor of Science in Computer Engineering, March 2009 to Febrary 2016

EXPERIENCE

Research Assistant, March 2016 to Present
Compiler Research Laboratory (Corelab), *POSTECH / Yonsei University*, Republic of Korea

- Developing compiler-runtime framework to improve programmability in IoT programming (IEEE MICRO 2016, LCTES'17)
- Developing compiler-runtime framework that automatically partitions cloud-centric IoT services for fog computing (CC'19)
- Designing scheduling algorithms for real-time decision making in IoT systems (Submitted to RTAS'20)
- Developing privacy-preserving edge computing framework (Submitted to LCTES'20)

Research Intern, September 1, 2019 to January 31, 2020
Samsung Advanced Institute of Technology, Suwon-si, Republic of Korea

- Developing compiler for many-core NPU
- Mentor: Jinseong Kim

Undergraduate Research Assistant, March 2014 to February 2016
Compiler Research Laboratory (Corelab), *POSTECH*, Pohang, Republic of Korea

- Developing JavaScript web worker offloading on the Blink web engine and V8 compiler

RECOGNITION

- Silver Medal, Graduate Student Research Competition at CGO 2020, February 2020
- Best Oral Presentation Award, CSE Students Workshop at POSTECH, September 2016
- Winner of Broadcasting and Press Section, Web Award KOREA, 2014

ACTIVITIES

DOMESTIC CONFERENCE ORGANIZING ASSISTANTS

- Local Arrangements Assistant, The KIISE Computer Systems Winter Workshop, January 2019
- Local Arrangements Assistant, The KIISE Computer Systems Winter Workshop, January 2018
- Local Arrangements Assistant, The KIISE Computer Systems Winter Workshop, January 2017

INTERNATIONAL JOURNAL SUB-REVIEWER

- Sub-reviewer, IEEE MICRO

INTERNATIONAL CONFERENCE SUB-REVIEWER

- Sub-reviewer, 2018 IEEE International Symposium on Workload Characterization (IISWC)

TEACHING

- LLVM Compiler Tutorial on Program Analysis and Optimization
  Lecturer, LIG Nex1, 27 Feburary 2018
  (Teaching how to write LLVM passes for program analysis and optimization)
- CSED 423: Compiler Design
  Teaching Assistant, Spring 2017
  (Teaching weekly lab classes about compiler implementation and grading lab assignments)
- CSED 312: Operating System
  Teaching Assistant, Fall 2017
  (Teaching lab classes about operating system implementation and grading lab assignments)

PUBLICATIONS

REFEREED JOURNAL PUBLICATIONS

[1] Bongjun Kim, Seonyeong Heo, Gyeongmin Lee, Soyeon Park, Hanjun Kim, and Jong Kim, "Heterogeneous Distributed Shared Memory for Lightweight Internet-of-Things Devices," in *IEEE Micro*, November 2016.

REFEREED CONFERENCE PUBLICATIONS

[2] Seonyeong Heo, Seungbin Song, Bongjun Kim, and Hanjun Kim, "Sharing-aware Data Acquisition Scheduling for Multiple Rules in the IoT," to appear in *Proceedings of the IEEE Real-Time And Embedded Technology And Applications Symposium (RTAS)*, April 2020.

[3] Bongjun Kim, Seonyeong Heo, Gyeongmin Lee, Seungbin Song, Jong Kim, and Hanjun Kim, "Spinal Code: Automatic Code Extraction for Near-User Computation in Fogs," in *Proceedings of the 28th International Conference on Compiler Construction (CC)*, February 2019.

[4] Gyeongmin Lee, Seonyeong Heo, Bongjun Kim, Jong Kim, and Hanjun Kim, "Rapid prototyping of IoT applications with Esperanto compiler," in *Proceedings of the 28th International Symposium on Rapid System Prototyping (RSP)*, October 2017. <u>Invited</u>.

[5] Gyeongmin Lee, Seonyeong Heo, Bongjun Kim, Jong Kim, and Hanjun Kim, "Integrated IoT Programming with Selective Abstraction," in *Proceedings of the 18th ACM SIGPLAN/SIGBAD Conference on Languages, Compilers, Tools, and Theory for Embedded Systems (LCTES)*, June 2017.

PATENTS

[6] Bongjun Kim, Jong Kim, Soyeon Park, Hanjun Kim, Seonyeong Heo, and Gyeongmin Lee, "Heterogeneous Distributed Shared Memory For IoT Devices," KR Patent Number 10-18579070000, February 2017.