Sung-Hwan Lee

Compiler Engineer at Rebellions Inc.

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Education

Seoul National University Ph.D. in Computer Science and Engineering Advisor: Chung-Kil Hur Thesis: Understanding and Fulfilling the Desiderata for Relaxed Memory Models	09/2017 - 08/2023
Seoul National University B.S. in Computer Science and Engineering	03/2013 - 08/2017
Seoul Science High School	03/2010 - 02/2013
Experience	
Rebellions Inc., Seoul, Korea Compiler Engineer	11/2023 - Current
Seoul National University , Seoul, Korea Postdoctoral Researcher	09/2023 - 10/2023

Publications

[1] Putting Weak Memory in Order via a Promising Intermediate Representation.

Sung-Hwan Lee, Minki Cho, Roy Margalit, Chung-Kil Hur, Ori Lahav.

PLDI 2023: The 44th ACM SIGPLAN Conference on Programming Language Design and Implementation.

[2] Sequential Reasoning for Optimizing Compilers under Weak Memory Concurrency.

Minki Cho*, Sung-Hwan Lee*, Dongjae Lee, Chung-Kil Hur, Ori Lahav.

PLDI 2022: The 43rd ACM SIGPLAN Conference on Programming Language Design and Implementation.

[3] Revamping Hardware Persistency Models: View-based and Axiomatic Persistency Models for Intel-x86 and ARMv8.

Kyeongmin Cho, Sung-Hwan Lee, Azalea Raad, Jeehoon Kang.

PLDI 2021: The 42nd ACM SIGPLAN Conference on Programming Language Design and Implementation.

[4] Modular Data-Race-Freedom Guarantees in the Promising Semantics.

Minki Cho, Sung-Hwan Lee, Chung-Kil Hur, Ori Lahav.

PLDI 2021: The 42nd ACM SIGPLAN Conference on Programming Language Design and Implementation.

[5] Promising 2.0: Global Optimizations in Relaxed Memory Concurrency.

Sung-Hwan Lee, Minki Cho, Anton Podkopaev, Soham Chakraborty, Chung-Kil Hur, Ori Lahav, Viktor Vafeiadis.

PLDI 2020: The 41st ACM SIGPLAN Conference on Programming Language Design and Implementation.

[6] Promising-ARM/RISC-V: A Simpler and Faster Operational Concurrency Model.

Christopher Pulte, Jean Pichon-Pharabod, Jeehoon Kang, Sung-Hwan Lee, Chung-Kil Hur.

PLDI 2019: The 40th ACM SIGPLAN Conference on Programming Language Design and Implementation.

^{*} equal contribution

[7] Illuminance During a Solar Eclipse with Limb Darkening: A Mathematical Model.

Sung-Hwan Lee, Siyul Lee.

Journal of the Korean Astronomical Society, vol. 45, no. 5, Oct. 2012.

Honors & Awards

SNU CSE PhD Dissertation Award

08/2023

Department of Computer Science and Engineering, Seoul National University.

Star Student Researcher Award

03/2023

BK21 FOUR Intelligence Computing, Seoul National University.

National Presidential Science Scholarship

03/2013 - 08/2017

Korea Student Aid Foundation.

Teaching

Teaching Assistant

Principles and Practices of Software Development Instructor: Chung-Kil Hur

Spring 2022

Spring 2022 Spring 2021

Spring 2021

Spring 2020 Spring 2019

Spring 2018

Principles of Programming

Fall 2018

Instructor: Chung-Kil Hur