




# Sung-Hwan Lee

Ph.D. Student at Seoul National University

 [personal page](#)  
 [google scholar](#)  
 [sunghwan.lee@sf.snu.ac.kr](mailto:sunghwan.lee@sf.snu.ac.kr)

## Research Interests

---

**Concurrency:** relaxed memory models for software/hardware, compiler correctness

**Formal verification:** interactive theorem proving, program logics, distributed systems

## Education

---

<b>Seoul National University</b> Ph.D. Student in Computer Science and Engineering Advisor: Chung-Kil Hur	09/2017 - 08/2023 (expected)
<b>Seoul National University</b> B.S. in Computer Science and Engineering	03/2013 - 08/2017
<b>Seoul Science High School</b>	03/2010 - 02/2013

## Publications

---

\* *equal contribution*

- [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.**
- [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

---

**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**

Spring 2022

Instructor: Chung-Kil Hur

Spring 2021

Spring 2020

Spring 2019

Spring 2018

**Principles of Programming**

Fall 2018

Instructor: Chung-Kil Hur

## References

---

**Chung-Kil Hur**, Professor, Seoul National University.

**Ori Lahav**, Associate Professor, Tel Aviv University.

**Jecheon Kang**, Assistant Professor, KAIST.