Curriculum Vitae

Personal Information

Full Name:	Seongmin Lee
Full Curriculum Vitae:	https://nimgnoeseel.github.io/resources/cv/cv.pdf
Google Scholar:	https://scholar.google.com/citations?user=-YSnc6kAAAAJ&hl=en
Personal Website:	https://nimgnoeseel.github.io

Research Interests

My research interest lies in dynamic program analysis, especially using statistical methods on dynamic information from execution to reason about a program's semantic properties, which is incapable or limited in scalability for static analysis. The goal of my research is to bring program analysis closer to real-world circumstances regarding the scale and complexity of software within the presence of non-experimental or missing data in the analysis.

Education and Employment

Max Planck Institute for Security and Privacy — Germany

Postdoctoral Researcher, Software Security Research group (Group head: Dr. Marcel Böhme) Sep. 2022 – Present

Korea Advanced Institue of Science and Technology — Republic of Korea

Doctor of Philosophy, School of Computing (Advisor: Dr. Shin Yoo) Sep. 2016 – Aug. 2022

Bachelor of Science, School of Computing Feb. 2012 – Aug. 2016

Bachelor of Science, Department of Mathematical Sciences

Selected Publications

Journal Articles

- Seongmin Lee, David Binkley, Robert Feldt, Nicolas Gold, and Shin Yoo. Observation-based approximate dependency modeling and its use for program slicing. *Journal of Systems and Software*, page 110988, 2021
- Seongmin Lee, David Binkley, Nicolas Gold, Syed Islam, Jens Krinke, and Shin Yoo. Evaluating lexical approximation of program dependence. *Journal of Systems and Software*, 160:110459, 2020

Conference/Technical Reports

- Seongmin Lee and Marcel Böhme. Statistical reachability analysis. In *ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE)*, December 2023
- S. Lee, S. Hong, J. Yi, T. Kim, C. Kim, and S. Yoo. Classifying false positive static checker alarms in continuous integration using convolutional neural networks. In *2019 12th IEEE Conference on Software Testing, Validation and Verification (ICST)*, pages 391–401, 2019
- Seongmin Lee, Dave Binkley, Robert Feldt, Nicolas Gold, and Shin Yoo. Causal program dependence analysis and causal fault localization. Technical Report CS-TR-2021-423, Korea Advanced Institute of Science and Technology, 291 Daehak-ro, Yuseong-gu, Daejeon, Korea 34141, January 2021

Academic Services

- Program committee: ASE 2023 / (Artifact Evaluation Track) USENIX 2024, ICSE 2024, ISSTA 2023, ICSME 2022, 2021
- Reviewer: JSS 2020, JSS 2021, TOSEM 2022 / (External) ICSE 2023, ISSTA 2023

Awards and honors

- **PhD Dissertation Award**, School of Computing, KAIST, 2022
  - *Title of Dissertation: Statistical Program Dependence Approximation*
- **2021 Naver Ph.D. Fellowship Award**: Awarded by NAVER Corp. to Ph.D. candidates who have published an outstanding research paper or have excellent publication performance, 2021
- Government-sponsored Scholarship, Ministry of Science and ICT of Korea, 2016 - 2022
- Government-sponsored Scholarship, Ministry of Science and ICT of Korea, 2012 - 2016