Jaeho Kim

Master Student

Korea Advanced Institute of Science and Technology

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Education

Korea Advanced Institute of Science and Technology — *Daejeon, Korea*

M.S. in Computer Science — *Sep. 2022 - Current*

- **Thesis:** Patch Transplantation by Syntactic and Semantic Pattern Matching (TBD)
- **Advisor:** Kihong Heo

Korea University — *Seoul, Korea*

B.S. in Computer Science — *Mar. 2018 - Aug. 2022*

- **GPA:** 4.09/4.5
- **Thesis:** VeriPy: An Automatic Verifier for Proving Correctness of Programs
- **Advisor:** Hakjoo Oh

Korea Science Academy of KAIST — *Busan, Korea*

High School Diploma — *Mar. 2015 - Feb. 2018*

Research Experience

Korea Advanced Institute of Science and Technology — *Daejeon, Korea*

Undergraduate Research Intern — *Jun. 2021 - Aug. 2022*

- Fault localization using Bayesian Networks
- **Advisor:** Kihong Heo

Korea University — *Seoul, Korea*

Undergraduate Research Intern — *Dec. 2019 - Jun. 2021*

- Verifying correctness of Python programs using SMT solver
- **Advisor:** Hakjoo Oh

Publications

Conference Proceedings

- Jongchan Park, Jaeho Kim, Tae Eun Kim, and Kihong Heo, “Differential Fault Localization using Bayesian Networks,” in Proceedings of the Korean Information Science Society Conference, 2022, pp. 1239-1241.

Projects

Haechi: Static/Dynamic Analyzer for LLVM IR — *Daejeon, Korea*

Korea Advanced Institute of Science and Technology — *Dec. 2022 - Current*

- I designed and implemented a static/dynamic analyzer for LLVM IR with my laboratory members.
- Especially, I designed abstract domain and abstract semantics for LLVM IR.

Teaching Experience

Teaching Assistant

- **CS348:** Information Security, Spring 2023, KAIST
- **CS966:** KAIST SoC Colloquium, Spring 2023, KAIST
- **COSE102:** Computer Programming, Fall 2020, Korea University

Skills

Technical	Program Analysis, Program Verification, Progarm Synthesis, SMT-based Reasoning.
Programming	Python, C/C++, OCaml.
Miscellaneous	LLVM, Z3, Linux, Shell (Bash/Zsh), LaTeX.