

JAY LEE 이재호

CURRICULUM VITAE

✉ jaeho.lee@snu.ac.kr, jhlee@ropas.snu.ac.kr
🌐 ropas.snu.ac.kr/~jhlee, jaylee.xyz
🔗 Zeta611

RESEARCH INTERESTS

Programming Languages, Program Analysis, Functional Programming, and Human-Computer Interaction

EDUCATION

- Mar 2024–Present **Seoul National University (SNU), M.S. in Computer Science and Engineering**
Advised by Kwangkeun Yi.
- Mar 2018–Feb 2024 **Seoul National University (SNU), B.S. in Electrical and Computer Engineering (Cum laude)**
Advised by Yoonchan Jeong.
Leave of absence for mandatory military service during 2020–2021.
- Mar 2015–Feb 2018 **Korea Science Academy of KAIST (KSA), High school for gifted students**

SELECTED RESEARCH

- 📄🔗 OOPSLA 2025 **REACT-TRACE: A Semantics for Understanding React Hooks**
Jay Lee, Joongwon Ahn, Kwangkeun Yi
Conditionally accepted.
- 🔗 UIST 2025 Posters **ReDemon UI: Reactive Synthesis by Demonstration for Web UI**
Jay Lee, Gyuhyeok Oh, Joongwon Ahn, Xiaokang Qiu
Submitted.
- 📄 PLDI 2025 Student Research Competition (SRC) **Retargeting an Abstract Interpreter for a New Language by Partial Evaluation**
Jay Lee
Awarded 2nd place in the graduate category.

SELECTED HONORS

- Jun 2025 **PLDI 2025 Student Research Competition (SRC) 2nd Place**
Awarded in the graduate category for the work on Retargeting an Abstract Interpreter for a New Language by Partial Evaluation.
- Sep 2024 **Outstanding Teaching Assistant Award**
Awarded for the course SNU 4190.310 Programming Languages taught by Prof. Kwangkeun Yi.
- Mar 2018–Feb 2024 **National Presidential Scholarship for Science**
Offered to top-120 undergraduate students in the field of science and technology.
- May 2017 **Intel International Science and Engineering Fair (ISEF) Finalist**
Finalist with the project Receding Horizon Next-Best-View Planner Based Voronoi-Biased 3D Multi-Robot Exploration Algorithm.
- Mar 2015–Feb 2018 **Korea Science Academy Fund Scholarship**
Scholarship for students with high GPAs.

TEACHING

Teaching Assistant

- Spring 2025 **SNU 4190.664A Program Analysis**
- Spring 2025 **SNU 4190.310 Programming Languages**
- Spring 2024 **SNU 4190.310 Programming Languages**
Awarded the Outstanding Teaching Assistant Award.
- Spring 2022 **SNU 4190.310 Programming Languages**

INDUSTRY EMPLOYMENT

Apr 2019–Dec 2019 **Jeongyookgak**, *iOS application developer*
Jeongyookgak is a distribution business startup that delivers fresh meat to customers.

MISCELLANEOUS

- 2025–Present **OCaml organization**, *Opam repository maintainer*
Maintaining the OCaml package repository.
- 2023–Present **easyword.kr**, *Designer & developer*
A platform to suggest and discuss Korean translations of computer science jargons. Led by Prof. Kwangkeun Yi and funded by the Korean Institute of Information Scientists and Engineers (KIISE).
- 2020–Present **simplebnf**, *Developer*
A \LaTeX package that provides a simple way to typeset BNF using a DSL. Available on CTAN.
- 2023 **Cycloidal-Surfaces**, *Illustrator*
Illustrations of cycloid surfaces on parametrized curves with Asymptote, used in [Hyounggyu Choi. \(2023\) Invariance of the Area and Volume of Cycloid Surfaces and Trochoid Surfaces. *The American Mathematical Monthly* 130:1, 49-62.](#)
- 2020 **CycloidGen**, *Illustrator*
Illustrations of cycloids on parametrized curves with TikZ and Python, used in [Hyounggyu Choi. \(2020\) Invariance of the Length and the Area of Cycloids. *The American Mathematical Monthly* 127:6, 537-544.](#)
- 2019–2024 **Korean \TeX Society (KTS)**, *Member*
I have given a few talks including:
- [Modern \$\text{\TeX}\$: Engines, AI, and Automation](#), 2023 KNU \LaTeX Workshop
 - [Drawing tables with tabularray](#), 2022 KNU \LaTeX Workshop
 - [Asymptote: The Vector Graphics Language](#), 2022 KNU \LaTeX Workshop
 - [The “key-value” structure in \$\text{\LaTeX}\$](#) , 2021 KNU \LaTeX Workshop
 - [beamer: Content-focused Presentation](#), 2020 KNU \LaTeX Workshop
 - [\$\text{\TeX}\$ nical Vim](#), 2020 KTS Conference
 - [memoir: chapter style](#), 2019 KNU \LaTeX Workshop
- 2018–2024 **SNULife**, *Development head*
SNULife is the web community for SNU with 180k+ monthly visitors. I created an iOS app for planning timetables and sharing lecture reviews, used by 5k+ users.
- 2020–2021 **ROK Army**, *Sergeant signaller*
Completed mandatory military service in the ROK Army.
- 2018 **Student Representative**, *Department of Electrical and Computer Engineering*
Elected as a student representative for the Department of Electrical and Computer Engineering at SNU.
- 2016, 2017 **Korea Young Physicists’ Tournament (KYPT)**, *Team lead*
KYPT is a physics competition for high school students. I led the team that won a gold medal in KYPT 2017 and a bronze medal in KYPT 2016.
-  KIPS 2016 **Receding Horizon Next-Best-View Planner Based Voronoi-Biased 3D Multi-Robot Exploration Algorithm**
[J. Lee](#), C. Lee, W. Jung, S. Song, S. Jo
A domestic conference paper.
- 2016 **Frontiers Summer Program**, *Worcester Polytechnic Institute*
Studied aerospace engineering and psychology at Worcester Polytechnic Institute in the USA.

NATURAL LANGUAGES

Korean (native), **English** (fluent), **Spanish** (elementary)