

# 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

-  **REACT-TRACE: A Semantics for Understanding React Hooks**  
Jay Lee, Joongwon Ahn, Kwangkeun Yi  
*Conditionally accepted.*
-  **ReDemon UI: Reactive Synthesis by Demonstration for Web UI**  
Jay Lee, Gyuhyeok Oh, Joongwon Ahn, Xiaokang Qiu  
*Submitted.*
-  **Retargeting an Abstract Interpreter for a New Language by Partial Evaluation**  
Jay Lee  
*Awarded 2<sup>nd</sup> place in the graduate category.*

## SELECTED HONORS

- Jun 2025 **PLDI 2025 Student Research Competition (SRC) 2<sup>nd</sup> Place**  
For the work on *Retargeting an Abstract Interpreter for a New Language by Partial Evaluation*.
- Sep 2024 **Outstanding Teaching Assistant Award**  
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**  
For 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**  
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 for this course.*
- Spring 2022 **SNU 4190.310 Programming Languages**

## INDUSTRY EMPLOYMENT

---

Apr 2019–Dec 2019



### **Jeongyookgak**, *iOS application developer*

Developed an iOS app for Jeongyookgak, 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  $\text{\LaTeX}$  package that provides a simple way to typeset BNF using a DSL. Available on [CTAN](#).



2023

### **Cycloidal-Surfaces**, *Illustrator & developer*

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 & developer*

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 $\text{\TeX}$ Society (KTS)**, *Member*

I have given a few talks including:

- [Modern  \$\text{\TeX}\$ : Engines, AI, and Automation](#), 2023 KNU  $\text{\LaTeX}$  Workshop
- [Drawing tables with `tabulararray`](#), 2022 KNU  $\text{\LaTeX}$  Workshop
- [Asymptote: The Vector Graphics Language](#), 2022 KNU  $\text{\LaTeX}$  Workshop
- [The “key-value” structure in  \$\text{\LaTeX}\$](#) , 2021 KNU  $\text{\LaTeX}$  Workshop
- [beamer: Content-focused Presentation](#), 2020 KNU  $\text{\LaTeX}$  Workshop
- [\$\text{\TeX}\$ nicol Vim](#), 2020 KTS Conference
- [memoir: chapter style](#), 2019 KNU  $\text{\LaTeX}$  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

### **Republic of Korea (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.

KYPT 2016, 2017

### **Korea Young Physicists' Tournament**, *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)