
EDUCATION

University of Michigan <i>Ph.D. in Computer Science and Engineering (Advisor: Lu Wang)</i>	Aug 2024 - Present
Seoul National University <i>B.S. in Computer Science and Engineering</i> <i>GPA: 4.18/4.3 (cumulative), 4.17/4.3 (major)</i> <i>Summa cum laude, rank: 1st in the department</i>	Mar 2020 - Feb 2024
Seoul Science High School <i>The school for gifted students in mathematics and science, teaching college-level math and science</i> <i>GPA: 4.18/4.3</i>	Mar 2017 - Feb 2020

WORK EXPERIENCE

NAVER Cloud HealthCare AI <i>Research Intern</i> <ul style="list-style-type: none">Contributed to the curation of an EMR note retrieval dataset using entity linking algorithms	Mar 2024 - Jun 2024 <i>Seongnam, South Korea</i>
Language and Data Intelligence Lab <i>Undergraduate Research Intern (Advisor: Prof. Seung-won Hwang)</i> <ul style="list-style-type: none">Participated in improving language-based image editing interface using cycle consistencyPublished in the IJCNLP-AAACL workshop as a co-first author	Mar 2023 - Feb 2024 <i>Seoul, South Korea</i>
DeepMetrics <i>Machine Learning Engineering Intern (Advisor: Prof. Hyun Oh Song)</i> <ul style="list-style-type: none">Participated in medical data preprocessing & developed algorithms for autonomous ventilator manipulation	Jun 2022 - Jan 2023 <i>Seoul, South Korea</i>
Samsung Device Solutions Memory <i>Software Intern</i> <ul style="list-style-type: none">Participated in semiconductor wafer anomaly detection using machine learning algorithms	Jul 2021 - Aug 2021 <i>Hwaseong, South Korea</i>

HONORS AND AWARDS

Best Presentation Award, NLP @ Michigan Day	Mar 2025
Kwanjeong Educational Foundation Scholarship	Aug 2024 - Present
Outstanding Student Commendation from the Alumni Association	Feb 2024
Excellent Bachelor's Thesis Presentation Award	Feb 2024
SNU Tomorrow's Engineers Membership <i>Honor Society of Seoul National University College of Engineering</i>	Mar 2022 - Aug 2022
Outstanding Tutor Award <i>Award bestowed upon tutors demonstrating outstanding achievements and exemplary dedication in the peer tutoring program</i>	Aug 2021

Presidential Science Scholarship

Mar 2020 - Feb 2024

*Full tuition plus living expenses support for undergraduate students majoring in science and technology***Volunteer Service Silver Certificate**

Dec 2019

*Certificate awarded for over 500 hours of volunteer service***Winter School of the Korean Physics Olympiad**

Jan 2018 - Jan 2018

*Program for International Physics Olympiad (IPhO) candidates sponsored by the Korean Physical Society*PROJECTS

WaffleStudio Toy Project

Dec 2022 - Feb 2023

Web & App Development Project hosted by Seoul National University

- Developed a sharable calendar web service using Next.js and Django
- Secured the third position among all the competing participants
- [frontend](#), [backend](#)

K-Startup Maker Project

Jul 2020 - Dec 2020

Maker Project hosted by the Korean Government

- Awarded 5,000\$ in funding
- Developed a software for "Sensorless Robot Navigation via External Camera Monitoring" as vision team leader
- Used U-Net for driving area detection and DOPE (Deep Object Pose Estimation) for robot position detection
- [code](#)

International Student Car Competition 2020

Apr 2020 - Aug 2020

Electric Car Competition for Students at an International Level, Autonomous Car Category

- Developed a comprehensive autonomous driving structure
- Implemented real-time parking lot detection by modifying YOLOv3's structure and loss function and accurate lane detection using LaneNet
- [code](#)

PUBLICATIONS

Enhancing Multilingual Reasoning in Language Models

- Exploring different rollout methods and loss functions in RL to improve multilingual reasoning.
- Generating synthetic training datasets to improve multilingual reasoning.

*Ongoing Project***LiveOIBench: Can Large Language Models Outperform Human Contestants in Informatics Olympiads?**

- Implemented self-debugging baselines.

*Kaijian Zou, Aaron Xiong, Yunxiang Zhang, Xinliang Frederick Zhang, Yueqi Ren, Jirong Yang, Ayoung Lee, Shitanshu Bhushan, Lu Wang**Submitted to ICLR 2026***Logit Arithmetic Elicits Long Reasoning Capabilities Without Training**

- Ran supervised fine-tuning experiments, with and without LoRA, for distillation baselines.

*Yunxiang Zhang, Muhammad Khalifa, Lechen Zhang, Xin Liu, Ayoung Lee, Xinliang Frederick Zhang, Farima Fatahi Bayat, Lu Wang**COLM 2025, The 1st Workshop on Test-time Scaling and Reasoning Models, Submitted to ARR 2025 Oct [paper]***CLASH: Evaluating Language Models on Judging High-Stakes Dilemmas from Multiple Perspectives***Ayoung Lee, Ryan Sungmo Kwon, Peter Railton, Lu Wang**Preprint, Submitted to ICLR 2026 [paper]*

On Consistency Training for Language-Based Image Editing Interface

Youngwon Lee*, Ayoung Lee*, Yeonjoon Jung, Seung-won Hwang (* denotes equal contribution)

IJCNLP-AACL 2023, Second Workshop on Natural Language Interfaces (Oral) [\[paper\]](#) [\[code\]](#)

TALKS

Injecting Math Reasoning Abilities in Language Models

Jun 2024

@ Deepest, Seoul National University

Study Abroad Presentation for Students

May 2024

@ Seoul Science High School

TEACHING

(M1522.000700) Logic Design, Seoul National University

Sep 2021 - Dec 2021

Teaching Assistant (Instructor: Jihong Kim)

Seoul, South Korea

(034.005) Foundation of Physics 1, Seoul National University

Mar 2021 - Aug 2021

Peer Tutor

Seoul, South Korea

(M1522.000700) Logic Design, Seoul National University

Mar 2021 - Aug 2021

Tutor

Seoul, South Korea

SKILLS

Programming

Python, Java (proficient), C, C++, TypeScript (intermediate),
PyTorch (proficient), React, Next.js, Django, Tensorflow (intermediate),
Git (proficient)

Communication

Korean (native), English (fluent, TOEFL 115/120 with R 29 L 30 W 27 S 29)