EDUCATION

University of Michigan

Aug 2024 - Present

Ph.D. in Computer Science and Engineering (Advisor: Lu Wang)

Seoul National University

Mar 2020 - Feb 2024

B.S. in Computer Science and Engineering GPA: 4.18/4.3 (cumulative), 4.17/4.3 (major) Summa cum laude, rank: 1st in the department

Seoul Science High School

Mar 2017 - Feb 2020

The school for gifted students in mathematics and science, teaching college-level math and science GPA: 4.18/4.3

Work Experience

NAVER Cloud HealthCare AI

Mar 2024 - Jun 2024

Research Intern

Seongnam, South Korea

• Contributed to the curation of an EMR note retrieval dataset using entity linking algorithms

Language and Data Intelligence Lab

Mar 2023 - Feb 2024

Undergraduate Research Intern (Advisor: Prof. Seung-won Hwang)

Seoul, South Korea

- \bullet Participated in improving language-based image editing interface using cycle consistency
- Published in the IJCNLP-AACL workshop as a co-first author

DeepMetrics Jun 2022 - Jan 2023

Machine Learning Engineering Intern (Advisor: Prof. Hyun Oh Song)

Seoul, South Korea

• Participated in medical data preprocessing & developed algorithms for autonomous ventilator manipulation

Samsung Device Solutions Memory

Jul 2021 - Aug 2021

Software Intern

Hwaseong, South Korea

Participated in semiconductor wafer anomaly detection using machine learning algorithms

Honors and Awards

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

Mar 2022 - Aug 2022

Honor Society of Seoul National University College of Engineering

Outstanding Tutor Award

Aug 2021

Award bestowed upon tutors demonstrating outstanding achievements and exemplary dedication in the peer tutoring program

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

Certificate awarded for over 500 hours of volunteer service

Winter School of the Korean Physics Olympiad

Jan 2018 - Jan 2018

Dec 2019

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

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

 $\label{eq:continuous} Python, Java (proficient), C, C++, TypeScript (intermediate), \\ PyTorch (proficient), React, Next.js, Django, Tensorflow (intermediate), \\$

Git (proficient)

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