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## EDUCATION

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### 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

*The school for gifted students in mathematics and science, teaching college-level math and science*

*GPA: 4.18/4.3*

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## PUBLICATIONS

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### Enhancing Multilingual Decision-Making in Language Models

- Developing a new evaluation dataset that focuses on cultural adaptation, addressing the limitations of direct translation.
- Exploring synthetic training datasets and rubric-based methods to improve decision-making.

*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*

*Preprint [paper]*

### 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 [paper]*

### CLASH: Evaluating Language Models on Judging High-Stakes Dilemmas from Multiple Perspectives

- Assessed the ability of language models to respond to dilemmas based on character descriptions as perspectives.
- Analyzed reasoning chains and identified new failure modes in the value-understanding domain.
- Converted a non-verifiable dilemma task into a verifiable format.

*Ayoung Lee, Ryan Sungmo Kwon, Peter Railton, Lu Wang*

*ICLR 2026 [paper]*

### On Consistency Training for Language-Based Image Editing Interface

- Generated training dataset using stable diffusion and YOLOv7 to enforce greater consistency in object-level image edits.

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

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

## HONORS AND AWARDS

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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	Mar 2022 - Aug 2022
Outstanding Tutor Award	Aug 2021
Presidential Science Scholarship	Mar 2020 - Feb 2024
Winter School of the Korean Physics Olympiad	Jan 2018 - Jan 2018

## WORK EXPERIENCE

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<b>NAVER Cloud HealthCare AI</b> <i>Research Intern</i>	<b>Mar 2024 - Jun 2024</b> <i>Seongnam, South Korea</i>
• Contributed to the curation of an EMR note retrieval dataset using entity linking algorithms	
<b>Language and Data Intelligence Lab</b> <i>Undergraduate Research Intern (Advisor: Prof. Seung-won Hwang)</i>	<b>Mar 2023 - Feb 2024</b> <i>Seoul, South Korea</i>
• Participated in improving language-based image editing interface using cycle consistency	
• Published in the IJCNLP-AAACL workshop as a co-first author	
<b>DeepMetrics</b> <i>Machine Learning Engineering Intern (Advisor: Prof. Hyun Oh Song)</i>	<b>Jun 2022 - Jan 2023</b> <i>Seoul, South Korea</i>
• Participated in medical data preprocessing & developed algorithms for autonomous ventilator manipulation	
<b>Samsung Device Solutions Memory</b> <i>Software Intern</i>	<b>Jul 2021 - Aug 2021</b> <i>Hwaseong, South Korea</i>
• Participated in semiconductor wafer anomaly detection using machine learning algorithms	

## TALKS

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<b>Injecting Math Reasoning Abilities in Language Models</b> <i>@ Deepest, Seoul National University</i>	<b>Jun 2024</b>
<b>Study Abroad Presentation for Students</b> <i>@ Seoul Science High School</i>	<b>May 2024</b>

## TEACHING

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<b>(M1522.000700) Logic Design, Seoul National University</b> <i>Teaching Assistant (Instructor: Jihong Kim)</i>	<b>Sep 2021 - Dec 2021</b> <i>Seoul, South Korea</i>
<b>(034.005) Foundation of Physics 1, Seoul National University</b> <i>Peer Tutor</i>	<b>Mar 2021 - Aug 2021</b> <i>Seoul, South Korea</i>
<b>(M1522.000700) Logic Design, Seoul National University</b> <i>Tutor</i>	<b>Mar 2021 - Aug 2021</b> <i>Seoul, South Korea</i>

## SKILLS

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### **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)