

# SEUNGPIIL LEE

(+82) 10 3283 0369 ◇ iamseungpil@gm.gist.ac.kr  
15 Gwacheon-daero 8-gil, Gwacheon-si  
Gyeonggi-do, Republic of Korea, 13824

## Personal Statement

Passionate master's student studying artificial intelligence. Interested in Brain-Inspired AI, Natural Language Processing and Reinforcement Learning. Also, maintaining keen interest in interdisciplinary subjects such as Cognitive Science and Science, Technology and Society(STS).

## EDUCATION

---

**Gwangju Institute of Science and Technology(GIST)**

*March 2025 - present*

Master

Major in AI Convergence

**Gwangju Institute of Science and Technology(GIST)**

*March 2018 - December 2024*

Undergraduate

Overall GPA: 3.66/4.50

Major in Electrical Engineering and Computer Science

Minor in Mathematics

Minor in Literature

**UC Berkeley**

*June 2019 - August 2019*

Berkeley Summer Session Program

Overall GPA: 4.00/4.00

## ACADEMIC ACTIVITIES

---

### Publications

- **Seungpil Lee\***, Donghyeon Shin, Yunjeong Lee and Sundong Kim, "Can Large Language Models Develop Gambling Addiction?", arXiv preprint, 2025.
- Sanha Hwang, Seungpil Lee, Sejin Kim and Sundong Kim, "Solution Augmentation for ARC-AGI Problems Using GFlowNet: A Probabilistic Exploration Approach", **TMLR**
- **Seungpil Lee\***, Woochang Sim\*, Donghyeon Shin\*, Sanha Hwang, Wongyu Seo, Jiwon Park, Seokki Lee, Sejin Kim and Sundong Kim, "Reasoning Abilities of Large Language Models: In-Depth Analysis on the Abstraction and Reasoning Corpus", **ACM TIST**.
- **Seungpil Lee\***, Woochang, Sim\*, Donghyeon, Shin\*, Sejin, Kim and Sundong, Kim. "Reasoning Abilities of Large Language Models through the Lens of Abstraction and Reasoning (Extended Abstract of the below paper)." NeurIPS Workshop on System-2 Reasoning at Scale, 2024.
- **Seungpil Lee\***, Donghyeon Shin\*, Klea Lena, Kovacec and Sundong, Kim. "From Generation to Selection: Findings of Converting Analogical Problem-Solving into Multiple-Choice Questions." **EMNLP Findings 2024**.
- Donghyeon Shin, Seungpil Lee, Klea Lena Kovačec and Sundong Kim, "Donghyeon Shin, Seungpil Lee, Klea Lena Kovačec, and Sundong Kim", **IJCAI Workshop 2024**.
- Hosung Lee\*, Sejin Kim\*, Seungpil Lee, Sanha Hwang, Jihwan Lee, Byung-Jun Lee and Sundong Kim, "ARCLE: The Abstract and Reasoning Corpus Learning Environment for Reinforcement Learning", **CoLLAs, 2024**.
- Seungpil Lee, Jihwan Lee and Sundong Kim, "Evaluating Prior Knowledge of ARC Using World Models", **Korea Software Congress, 2023**.
- Jihwan Lee, Seungpil Lee, Sejin Kim and Sundong Kim, "Extracting the core knowledge of ARC with the World Model", **Korea Software Congress, 2023**.
- Donghyeon Shin, Sanha Hwang, Seokki Lee, Yunho Kim, Seungpil Lee and Sundong Kim, "MC-LARC Benchmark to Measure LLM Reasoning Capability", **Korea Software Congress, 2023**.

## SKILLS

---

<b>Computer Languages</b>	C, C++, Java, JavaScript, Python
<b>Software &amp; Tools</b>	LaTeX, Spring, Spring Boot
<b>Language</b>	Korean(Native Language), English(Intermediate)

## EXPERIENCE

---

**DataScience Lab in GIST** *September 2023 - present*  
*Undergraduate Internship, Master's Degree*

- Tried to solve Abstraction and Reasoning Corpus (ARC) benchmark using World Model and Meta Reinforcement Learning
- LLM evaluation with Cognitive tools
- LLM alignment for solving Math and ARC benchmark

**Development Team in Korea Navy** *January 2022 - September 2023*

- Developed App and Web service for Korean Navy, mainly as back-end developer

**BioComputing Lab in GIST** *June 2020 - January 2021*  
*Undergraduate Internship*

- Tried to develop new Spiking Neural Network method with synthetic gradient

## AWARD & FUNDING

---

**National Research Foundation of Korea Funding, NRF** *September 2025 - September 2026*

- Funding offered to outstanding master's students for conducting research projects

**Korean Government Scholarships, GIST College** *March 2018 - August 2024*

- Scholarship awarded to students studying in GIST

**Scholarship for Summer Session Abroad** *June 2019 - August 2019*

- Scholarship awarded to students studying abroad during a summer session

**Navy AI Competition** *June 2023 - August 2023*

- Awarded drone object detecting competition hosted by Korean Navy

**K-StartUp finals** *March 2023 - November 2023*

- Advanced to the finals of Korean largest start-up contest, 'K-StartUp', as ML researcher and back-end developer

## EXTRA-CURRICULAR

---

**AGIST** *August 2020 - January 2021*  
*Deep Learning Study Group*

- Listened to presentations about various machine learning algorithms including explainable AI and Brain-inspired AI
- Prepared presentations of Spiking Neural Network(SNN) with Spike-Timing-Dependent Plasticity(STDP) learning