JeongHun Park

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Objective

Research on large language models (LLMs), spanning pre-training, post-training, multimodal extensions, and interpretability. Long-term goal: recursively self-improving agents with personalized memory modules.

Education

Seoul National University, B.S. in Computer Science and Engineering — Mar. 2020 – Feb. 2026 (Expected)

- GPA: 3.9/4.3 ($\approx$ 4.1/4.5) | Major GPA: 4.07/4.3 ($\approx$ 4.25/4.5)
- **Coursework:** Artificial Intelligence, Mathematical Foundations of Deep Neural Networks, Operating System

Experience

Research Intern, Human-Centered Computer System Lab, SNU — Apr. 2024 – Present

- Contributing to the *Lumo* project, which develops natural language agents by advancing API-based tool-calling architectures.
- Investigating limitations of current agent patterns (e.g., ReAct), proposing new architectures, and rapidly prototyping and evaluating them.
- Transitioned from prompt optimization toward agent-pattern research to pursue higher accuracy in complex tasks.

Software Engineering Intern, FADU — Jul. 2024 - Aug. 2024

- Built a chatbot using Retrieval-Augmented Generation (RAG) to enable internal access to technical specifications.
- Designed a scalable RAG pipeline integrating multiple LLM providers and vector databases, enabling reliable access to internal technical documentation.

Teaching Assistant, Seoul National University — Sep. 2022 – Present

- Assisted in teaching the following courses:
  - Computer Programming (2022 Fall, Prof. Lee)
  - Logic Design (2024 Spring, Prof. Lee)
  - Programming Practice (2024 Fall, Prof. Jeon)
  - Basic Computing (2024 Fall, Prof. Kim; 2025 Spring, Prof. Yamada)

Republic of Korea Air Force, Seoul, South Korea (Mandatory Military Service) — Apr. 2022 - Jan. 2024

- Information Systems Operator & Security Manager - maintained official Air Force website and secure internal networks.

Projects

ARC-AGI Task Solver using LoRA Fine-Tuning — 2025 Spring

- Fine-tuned Qwen3-4B on the ARC-AGI tasks using LoRA adapters and data augmentation.
- Developed an inference pipeline that combines few-shot prompting, test-time training, and majority-voting.
- Designed a fine-grained loss function to extract informative gradients from few-shot examples, improving training efficiency.

Minimal Deep Learning Framework — 2024 Winter

- Built a PyTorch-like framework with define-by-run backpropagation and GPU support via CuPy.
- Implemented a dynamic computation graph and automatic differentiation engine from scratch.

Perspective-Switching RPG Game in Unity 2024 Fall

- Led project architecture and pipeline setup with GitHub/Slack APIs and CI integration.
- Developed seamless perspective-switching mechanics between 2D and 3D in Unity.

National Defense AI Hackathon

- Led a team to develop a CNN-based radar signal classifier on military radar dataset.

Technologies

ML/AI: PyTorch, TensorFlow, LangChain, Google ADK

Software: Python, C/C++, C#, Java, Kotlin, Spring Boot, Django