

Junwon Seo

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Undergraduate Student at Seoul National University

[github](#) | [linkedIn](#) | [homepage](#)

RESEARCH INTEREST

I am interested in LLM agents for automated research, particularly how they maintain and update state and make sequential decisions over long-horizon tasks. My current research focuses on agentic retrieval and dynamic retriever routing.

EDUCATION

Seoul National University

B.S. in Civil & Environmental Engineering

Interdisciplinary Major in Artificial Intelligence

Seoul, Korea

Mar 2024 – Present

- Relevant Coursework: Machine Learning Fundamentals, Deep Learning Fundamentals
Data Structures & Algorithms, ML Math & Programming Practice

RESEARCH EXPERIENCE

LDI Lab, Seoul National University

Undergraduate Research Intern

Research Mentor: [Dohyeon Lee](#)

Seoul, Korea

Jun 2026 – Present

- Investigating adaptive retriever selection for reasoning-intensive retrieval.

Smart Construction Lab, Seoul National University

Undergraduate Research Intern

Advisor: Prof. Youngjib Ham

Seoul, Korea

Dec 2025 – Feb 2026

- Designed state representations and action spaces for RL-based control of excavators and vibratory rollers, informed by literature analysis and practical constraints.

PROJECTS

Research Loop

[Link](#)

Auditable autonomous experimentation plugin

- Developed a Codex/Claude Code plugin and deterministic Python runner that extends open-source agent-skill scaffolding into approved execution and evaluation contracts
- Enforced Git-worktree isolation, plan-hash approval, metric validation, experiment budgets, and append-only research ledgers

Margin

[Link](#)

Local-first research paper companion

- Built an Electron desktop app for PDF ingestion, figure/table review, evidence-linked Markdown notes, and local SQLite persistence
- Integrated Codex App Server for language-preserving note organization while keeping papers and confirmed notes local

Agent Skill Hub

[Link](#)

Local skill inventory and diagnostics app

- Built a local web app that discovers and deduplicates skills across 59 AI coding-agent platform definitions and project roots
- Implemented snapshot diffs, H001–H015 health checks, conservative path boundaries, safe prompt generation, and a 157-test verification suite

Additional Open-Source Project: [YouTube Skill](#) — Codex/Claude adapters and a shared Python engine for OAuth, resumable uploads, manifest validation, and publication safeguards

AWARDS

1st Place, KRAFTON Track — Cofathon: AI Native Battlegrounds

Jul 2026

KRAFTON & CJ Olive Young

- Scoped a field problem through interviews with a field manager and delivered a verified working demo within the event
- Built an interview practice web app that grounds LLM coaching in user-confirmed transcripts only, with schema-validated feedback contracts and fallback paths when speech recognition fails

Academic Excellence Scholarship

2025 Spring, 2025 Fall

Seoul National University

ACTIVITIES

- **Kakao AI Top100 Finalist** — Designed AI harnesses for prompt engineering, output verification, and practical LLM application workflows

SKILLS

Languages: Python, JavaScript/TypeScript

Frameworks: Next.js, React, Tailwind CSS

AI/ML: LLM agents, information retrieval, tool-use systems, LLM evaluation

Tools: OpenAI API, Open WebUI, Git, Vercel