Sehyeon Lee

Ph.D. Student in Computer Science at UIUC
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selectriclee.github.io

Education

University of Illinois Urbana-Champaign, Ph.D. in Computer Science — Aug 2026 –
- Advisor: Prof. Nishil Talati

Seoul National University, B.S. in Electrical and Computer Engineering — Mar 2020 – Feb 2026
- **GPA:** 4.11 / 4.3
- **Research Interests:** Computer Architecture and Computer Networks
- Summa cum laude

Research Experience

Research Assistant, UIUC — Aug 2026 –
- Defining and optimizing agent-level fairness in agentic LLM serving
- Advisor: Nishil Talati

Undergraduate Researcher, SCALE Lab — Sep 2025 – Feb 2026
- Implemented and benchmarked FHE workloads on a prototype accelerator
- Advisor: Ahn, Jung Ho

Undergraduate Researcher, TNET Lab — Mar 2025 – Sep 2025
- Developed an FPGA middlebox that connects hosts with heterogeneous MTU configurations
- Advisor: Park, KyoungSoo

Graduation Project — Jan 2025 – Jun 2025
- Accelerated privacy-preserving deep learning models using CKKS on CUDA
- Advisor: Choi, Woo-Seok

Undergraduate Researcher, AISys Lab — Jul 2024 – Aug 2024
- Designed fault-tolerant collective communication on a Processing-in-Memory architecture (UPMEM PIM)
- Advisor: Lee, Jinho

Publications

Towards Fair Resource Sharing in Agentic LLM Serving — 2026
Sehyeon Lee, Yuchen Xia, Zhaoyang Hong, Jinrui Hu, Anuradha Pandey, Evan Zhao, Ankita Nayak, Nishil Talati
arXiv preprint

Work Experience

Runtime Intern, HyperAccel — Mar 2026 – Jun 2026
- Designed and implemented the profiler software stack

Academic Projects

Embedded Systems and Design
- Accelerated a diffusion model by offloading core kernels to a GPU using CUDA and to an FPGA using Vitis HLS

Digital Systems and Design
- Implemented a CNN accelerator on an FPGA in Verilog, achieving the highest throughput in the class

Relevant Coursework

- **Computer Architecture:** Computer Organization, Digital Systems and Design, Embedded Systems and Design
- **Computer Systems:** System Programming, Advanced Compilers
- **Computer Networks:** Computer Networks, Interconnection of Computer Networks

Honors and Awards

SNU Student-Directed Education Undergraduate Research Program 2025
Seoul National University, Seoul, Korea

- Selected and funded undergraduate researcher under the SNU Student-Directed Education Undergraduate Research Program

Technical Skills

Programming: C++, C, Python, CUDA
Hardware / HDLs: Verilog, Vitis HLS
Frameworks and Libraries: PyTorch, Dynamo, CUPTI, OpenFHE, Lattigo

Languages

- Korean — Native
- English — Fluent (TOEFL iBT 114)