

(404) 706-9905  
266 Ferst Dr NW,  
Atlanta, GA 30332

# MinGyu Park

mgpark@gatech.edu  
linkedin.com/MinGyuPark  
alsrbok.github.io

## EDUCATION

### Georgia Institute of Technology

M.S., Ph.D in Electrical and Computer Engineering  
Advisor : Dr. Sung Kyu Lim

Atlanta, GA, USA  
Aug. 2023 - Present

### Seoul National University

B.S. in Electrical and Computer Engineering (CGPA: 3.93/4.0, **Summa Cum Laude**)

Seoul, Korea  
Mar. 2018 - Aug. 2023

## RESEARCH EXPERIENCES

**Research Interests:** 3D ICs, EDA flow with ML, RL, and Graph Algorithm, Back-Side Power & Clock Delivery Network

### Graduate Research Assistant at GTCAD Lab

- Advisor: Prof. Sung Kyu Lim
- **Imec Project**
  - Develop Back-Side Clock Delivery Network that improves delay and signal congestion.

Dec. 2023 - Present

- **Center for Heterogeneous Integration of Micro Electronic Systems(CHIMES) Project**
  - Utilized Macro-3D to build homogeneous and heterogeneous 3D ICs to generate dataset.
  - Built back-end(power, frequency) and front-end(runtime, energy) metric prediction models using only architectural spec and achieve better accuracy as well as data-efficiency.

Aug. 2023 - Present

### Research Student at SOR Lab

- Advisor: Prof. Yun-Heung Paek
- **Bachelor's Thesis:** "Hardware Logic-aware Design Space Exploration for DNN Accelerators"
  - Developed a reconfigurable accelerator on FPGA that can support any spatial/temporal unrolling.
  - Analyzed DSE frameworks and proposed a method that can achieve design automation with optimized hardware cost.

Jun. 2022 - Feb. 2023

### Research Student at VLSI Lab

- Advisor: Prof. Jae-Joon Kim
  - Applied the current CNN binarization method on GNN and demonstrated incompatibility.
  - Suggested solutions to overcome the limited activation distribution and oversmoothing issue.

Feb. 2022 - Oct. 2022

## TEACHING EXPERIENCES

**Undergraduate Student Tutor / Computer Organization**, Seoul National University

Spring 2023

**Undergraduate Student Tutor / Digital Logic Design and Lab**, Seoul National University

Fall 2022

**Lab Session Lecturer / Programming Methodology**, Seoul National University

Summer 2022

## PROFICIENCY IN SKILLS

### Programming Languages

C, C++, Python, TCL, bash

### EDA Tools

Cadence Innovus, Cadence Virtuoso, Cadence Tempus, Spectre, Calibre, ModelSim  
Synopsys Design Compiler

### Framework Library

PyTorch, PyG

### Hardware Description Languages Languages

Verilog, Chisel  
Korean (Native), English (Proficient)

## SELECTED COURSEWORK

---

### Course in Georgia Institute of Technology

- Generative and Geometric Deep Learning *Fall 2023*
- Advanced VLSI Systems *Fall 2023*

### Course in Seoul National University

- Digital Systems Design and Experiments *Fall 2022*
- Topics in Integrated Circuit Design (In-Memory Computing, audit) *Fall 2022*
- Topics in System Software *Fall 2022*
- Graph Convolution Network (Topics in Control and Automation) *Spring 2022*
- Machine Learning Fundamentals and Applications in Electrical and Computer Engineering *Spring 2022*

## SCHOLARSHIPS

---

### The Presidential Science Scholarship, Korea Student Aid Foundation

*Spring 2020 - Spring 2023*

*Scholarship for top students in science and technology with exceptional creativity and strong potential.*

*Full tuition and stipend support; 140 students are competitively selected nationwide.*

### Alumni Association Scholarship, Kwanak Corporation

*Spring 2019*

### Merit-Based Scholarship (60%), Seoul National University

*Fall 2018*