

ByeongYong (B.Y.) Go

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Education

Georgia Institute of Technology

Master of Science in Computer Science / GPA : 4.0

Atlanta, GA

Aug 2022 - Dec 2023 (Expected)

Seoul National University

Bachelor of Science in Electrical and Computer Engineering

Seoul, South Korea

Mar 2014 - Aug 2020

* 2-years leave due to military service for Republic of Korea Air Force

Achievements: Outstanding Member Award @ SK Hynix, Innovative Patent Award @ SK Hynix, National Science and Engineering Scholarship @ Korea Student Aid Foundation, Rank ~200, KSAT of 600,000 candidates.

Work Experience

Amazon

Incoming Software Development Engineering Intern

Palo Alto, CA

May 2023 - Aug 2023 (Expected)

Georgia Institute of Technology | C++

Graduate Research Assistant

Atlanta, GA

Aug 2022 - Present

- Research Topic: RowHammer - Memory side-channel attack and defenses, Advisor: Prof. Daniel Genkin
- Extended the recent Memory Side-Channel Attack (Blacksmith) from DDR4 Coffee Lake to DDR5 Raptor Lake(Most recent).
- Implemented memory side-channel attacks by developing low-latency memory access codes and manipulating memory access patterns regarding management systems of OS and modern Intel architecture mainly with C++ and x84_64 Assembly.

SK Hynix | C++, Python

Software Engineer / Design Engineer

Icheon, South Korea

Jul 2020 - Aug 2022

- Developed a company-wide memory simulator in C++ for product feature analysis, accelerating feature development cycle over 30%.
- Conducted 5+ successful JEDEC JC-42 committee meetings with client companies (Google, Apple, Microsoft, Intel, Qualcomm, etc.) by providing data analysis of core products with visualization to support key business strategies.
- Contributed to 1 IEEE paper and 7 US Patents(Accepted/to appear) by proactive cooperation with the design department.
- Developed an in-house ML tool for system workload data analysis, including building data pre-processing, pipeline, core algorithm.

Seoul National University | C++

Research Assistant

Seoul, South Korea

Dec 2019 - June 2020

- Developed embedded system with C++ on full-bridge wireless power transfer system under Prof. Jung-ik Ha, leveraging digital signal processing and wireless transmission techniques over TI's microcontroller.
- Designed specialized PCB board to support peripheral logic control and Bluetooth transmission.

Other Experience

- **Leadership:** Vice President and group leader of Evangelical Student Fellowship, organizing programs for University club with ~60 people, and leading group activities of the University union at Seoul of South Korea

Projects

FakeBook - Mock Social Media Application

- Built fully responsive mock social media application with Authorization, Post, Likes, Feeds, etc. | MongoDB, Express JS, React JS, Node JS Javascript

Financial Management System (Python)

- Built a system using DART API to manage personal investment using corporate intrinsic value through DCF model.

Technical Skills

- **Programming Languages:** C++, C, Python, JAVA, x86_64 Assembly, HTML/CSS, Javascript, Verilog, MATLAB
- **Framework/Technologies:** Version Control(Git); Low-level(GDB); Web(React, Node, Express);Cloud(AWS); Databases(MongoDB); ML(Pytorch, Scikit-learn); Utility(Linux Shell);

Selected Coursework

Distributed Systems	Advanced Operating Systems	High Performance Computing	Advanced Computer Architecture
Compiler Design	Applied Cryptography	Computer Networks	Advanced Algorithm
Probability & Statistics	Digital Circuit Design	Digital Signal Processing	Linear Algebra