

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

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

Seoul, South Korea

Mar 2014 - Aug 2020

Achievements: Outstanding Member Award @ SK Hynix, Innovative Patent Award @ SK Hynix, National Scholarship for Science and Engineering @ Korea Student Aid Foundation

Work Experience

Amazon

Incoming Software Development Engineering Intern

Palo Alto, CA

May 2023 - Aug 2023 (Expected)

Georgia Institute of Technology

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

Software Engineer / Design Engineer

Icheon, South Korea

Jul 2020 - Aug 2022

- Led the development of a company-wide high-frequency memory access simulator critical to \$36.35 billion in revenue per year.
- Developed several new in-house tools, including ML-based risk assessment program for system workloads and analysis of next-generation product features.
- 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 voluntarily cooperating with the design department.

Other Experience

- **Leadership:** Vice President of Evangelical Student Fellowship, ~60 people, University union at Seoul of South Korea

Projects

Financial Management System (Python)

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

FakeBook - MERN Social Media Application

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

Patents

- **Go, B.Y.** "Integrated circuit and a memory device including sampling circuit" U.S. Patent Application No. 17/703, 581.
- **Go, B.Y.** "Memory device for performing smart refresh operation and memory system including the same" U.S. Patent Application No. 17/731, 375. & No. 17/591, 982.

Technical Skills

- **Programming Languages:** C/C++, JAVA, Python, 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);

Coursework

Distributed Systems	Advanced Operating Systems	Advanced Computer Architecture	Secure Computer Systems
Compiler Design	Applied Cryptography	Network Security	Advanced Algorithm
Probability & Statistics	Data Structures	Digital Signal Processing	Linear Algebra