ByeongYong (B.Y.) Go

github.com/bygo7 | linkedin.com/in/bygo | bygo777@gmail.com | +1-(470)-923-7454

Education

Georgia Institute of Technology — Atlanta, GA
Master of Science in Computer Science / GPA : 4.0 — Aug 2022 - Dec 2023 (Expected)

Seoul National University — Seoul, South Korea
Bachelor of Science in Electrical and Computer Engineering — 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 — Palo Alto, CA
Incoming Software Development Engineering Intern — May 2023 - Aug 2023 (Expected)

Georgia Institute of Technology | C++ — Atlanta, GA
Graduate Research Assistant — 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 — Icheon, South Korea
Software Engineer / Design Engineer — 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++ — Seoul, South Korea
Research Assistant — 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.

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 financial 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	Computer Networks	Advanced Algorithm	Applied Cryptography
Digital Circuit Design	Digital Signal Processing	Quantum Mechanics	Advanced Engineering Mathematics