

Byeongyong Go

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EDUCATION

Georgia Institute of Technology

Master of Science - MS, Computer Science

Atlanta, GA

Aug 2022 - Dec 2023 (Expected)

Seoul National University

Bachelor of Science - BS, Electrical and Computer Engineering

* 2-year leave due to military service

Seoul, South Korea

Mar 2014 - Aug 2020

WORK EXPERIENCE

Amazon

Palo Alto, CA

Software Development Engineering Intern, Ads Core Team

May 2023 - Aug 2023

- Launched a real-time system health monitoring solution for distributed Ad services end-to-end, reducing monitoring cost by 30%
- Designed and implemented a unified metric/log dashboard using AWS CloudWatch and IAM, that autonomously discovers new metrics across servers and streamlines onboarding process with a single line code change, saving 25 man-hours per week
- Built and deployed a universal log sampler solution for multiple backend services on distributed clusters

SK Hynix

Icheon, South Korea

Software Engineer, Design Department

Jul 2020 - Aug 2022

- Led the development of an innovative hardware memory simulator, which was embraced across the company and slashed product development cycles by over 30%, contributing to \$36.35 billion annual revenue
- Formulated a machine learning based analyzer that detects and simulates malicious system workload patterns, enhancing security screening performance by 30%
- Owned multiple in-house automation and big data processing tools that cumulatively saved over 30 man-hours per week.
- Won an Outstanding Member Award for contributing to the publication of a top-tier IEEE paper and 7 US patents

ACADEMIC EXPERIENCE

Georgia Institute of Technology

Atlanta, GA

Graduate Research Assistant

Aug 2022 - May 2023, Aug 2023 -

- Conducted empirical research on micro-architectural side-channel attacks under guidance of Prof. Daniel Genkin
- Consolidated a heavy memory access software to bypass systematic protections, utilizing kernel drivers and fuzzing

Seoul National University

Seoul, South Korea

Student Researcher

Dec 2019 - June 2020

- Developed an embedded system using C on a TI microcontroller to facilitate digital signal processing
- Designed a specialized PCB board to support peripheral logic control and Bluetooth transmission

PROJECTS

Distributed Key-Value Store System | C++, gRPC

- Built a distributed NoSQL key-value in-memory store system with built-in failure resiliency, sharding, multi-threaded workers, and gRPC sync/async calls, resembling Amazon's DynamoDB

Edge IPC platform | C++

- Created a low-level inter-process communication client/server protocol and interface tailored for resource-constrained edge devices. Employed load balancing, multi-threading, message queue, and shared memory techniques

YouTube Clone | Spring, Angular, MongoDB, AWS S3

- Implemented a YouTube replica with full application features, leveraging a pipeline approach with MongoDB and AWS for storage and retrieval

TECHNICAL SKILLS

Language: C++, Java, Python, Javascript | **Web/Utilities:** React, AWS, MongoDB, Docker, Shell, Git, SQL