Byeongyong Go

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Education

Georgia Institute of Technology — Atlanta, GA
Master of Science - MS, Computer Science — *Aug 2022 - Dec 2023 (Expected)*

Seoul National University — Seoul, South Korea
Bachelor of Science - BS, Electrical and Computer Engineering — *Mar 2014 - Aug 2020*
* 2-year leave due to military service

Work Experience

Amazon Advertising — Palo Alto, CA
Software Development Engineering Intern — *May 2023 - Aug 2023*

- Launched a real-time system health monitoring solution for distributed Ad services, reducing monitoring cost by 30%
- Introduced a unified metric/log dashboard utilizing AWS CloudWatch and IAM, designed to automatically detect new metrics from multiple servers and support new onboard with one line change, reducing developer effort by 25h/w
- Formalized a dynamic log sampler for seamless integration across backend services to meet different cost limits

SK Hynix — Icheon, South Korea
Software Engineer/Design Engineer — *Jul 2020 - Aug 2022*

- Led the development of a company-wide fast memory simulator which decreased development cycle of a phase by more than 30% and contributed significantly to generating $36.35 billion in annual revenue
- Enhanced security screening performance up to 30% by formulating an ML-based analyzer for detection and re-generation of malicious system workload patterns
- Owned multiple in-house tools for automation and big data processing, saving more than 30h/w in developer time
- Won an Outstanding Member Award and contributed to the publication of a top-tier IEEE paper, 7 US patents

Academic Experience

Georgia Institute of Technology — Atlanta, GA
Graduate Research Assistant — *Aug 2022 - May 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