Byeongyong Go

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EDUCATION

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

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

WORK EXPERIENCE

Amazon   Palo Alto, CA
Software Development Engineering Intern, Ads Core Team   *May 2023 - Aug 2023*

- Launched real-time system health monitor for distributed Ad services end-to-end, reducing monitoring cost by 30%
- Designed a unified metric/log dashboard utilizing 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 weekly
- 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 with Python and C++, 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 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 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

EvaDB - LLM with Database

- Developed an application that facilitates the utilization of large language models at API-level within Databases
- Created explainable database through seamless connection with OpenAI APIs and SnowFlake query languages

YouTube Clone

- Implemented a YouTube replica with full application features, designed to handle thousands of users
- Leveraged modularization and pipeline approach with NodeJS, MongoDB and AWS for data storage and retrieval

Distributed Key-Value Store System

- Built a distributed, in-memory NoSQL key-value store system with gRPC, resembling Amazon's DynamoDB
- Ensured high-performing features including built-in failure resiliency, sharding, and multi-thread sync/async calls

TECHNICAL SKILLS

Programming Languages: C++, Java, Python, Typescript, Javascript, C, SQL
Technologies & Frameworks: *Backend* (Spring, Node.js, gRPC, OpenAPI), *Infrastructure* (Docker), *Big Data* (MongoDB, SnowFlake), *Cloud* (AWS), *SWE Tools* (Git, GitHub, Jira)