

Education

The University of Texas at Dallas, 08/2022 - 05/2024(expected)

Richardson, Texas

Master of Science in **Computer Science**

Researching on a security topic supervised by Dr. Kangkook Jee.

The University of Tokyo, 04/2017 - 03/2022

Tokyo, Japan

Bachelor of Science in **Electrical Engineering & Computer Science**

Studied computer science at Stanford University as an exchange student from 06/2019-08/2019

Wrote a bachelor thesis, "Type- and Sequential Effect-Guided Programming by Example," supervised by Prof. Masahiro FUJITA

Work Experience

Software Engineer Intern, Indeed, 06/2022 - 08/2022

Tokyo, Japan

Created a proof-of-concept data pipeline for its data infrastructure so that the data team and other teams could easily collaborate with the same API in different programming languages. The implementation allowed more people to analyze data in the company.

Software Engineer Intern, Hatena, 02/2022 - 06/2022

Tokyo, Japan

Migrated CI/CD pipelines from Jenkins to GitHub Actions and sped them up, resulting in better production quality by improving the development cycle and increasing the number of reviews and deployments.

Software Engineer Intern, FLYWHEEL, 07/2020 - 08/2020

Tokyo, Japan

Introduced the speed layer of the lambda architecture in the corporate data platform. The new layer potentially expanded the corporate business because streaming data analytics was useful for real-time analysis.

Research Experience

"Type- and Sequential Effect-Guided Programming by Example," supervised by Prof. Masahiro FUJITA

Wrote the bachelor thesis on program synthesis. Implemented an ML-like target language in OCaml. Its synthesizer used the language's type and effect system and given examples.

Projects

NSA Codebreaker Challenge 2022: by myself

Currently engaged in this CTF-style security contest.

A toy C compiler written in C itself: [ccc](#): by myself

Implemented a toy C compiler in C with a lexer, parser, and code generator. It generates x86-64 code.

The top 3 in ICCAD 2021 CAD Contest: in teams of 6

Teamed up with other lab members and worked on the circuit generation section in B4. Wrote evaluations of methods based on our criteria, actual statistics, and goal. My main task was testing what combination of methods we should choose.

BrainFk interpreter on Raspberry Pi written in Python: [muscle_f**k](#): by myself**

Implemented a Raspberry Pi application to enable people to get exercise while programming in B4