Educations

The University of Texas at Dallas August 2022 - Present

Richardson, Texas

Master of Science in Computer Science

The University of Tokyo April 2017 - March 2022

Tokyo, Japan

Bachelor of Engineering in Electrical Engineering & Computer Science

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

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

Employments

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, Q-Squared Technologies, 06/2021 - 02/2022

Tokyo, Japan

Created a proof-of-concept for network acceleration. My work contributed to the decision about what the company would select as a network library for the company.

Software Engineer Intern, Mercari, 08/2020 - 09/2020

Tokyo, Japan

Created a static analysis tool for the Go programming language.

Software Engineer Intern, FLYWHEEL, 06/2020 - 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.

Software Engineer Intern, Wantedly, 08/2019 - 09/2019

Tokyo, Japan

Improved existing functions of Wantedly People, an HR application, and added new functionalities. Those new functionalities were related to user management and enabled the company to find malicious users.

Research Experiences

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

Wrote the bachelor thesis on program synthesis. The target language was my original language, and the synthesis was conducted from its type system and given examples.

Synthesizer and the programming language were written in OCaml.

Projects

A toy C compiler written in C: ccc

Wrote a toy C compiler with a hobby as a lexer, parser, and code generator.

The top 3 in ICCAD 2021 CAD Contest

Teamed up with other lab members and worked on the circuit generation section in B4.

My main task was testing what combination of libraries we should choose, and I wrote evaluations of them based on our criteria, actual statistics, and goal.

BrainF**k interpreter on Raspberry Pi written in Python: muscle f**k

Created a Raspberry Pi app to enable people to get exercise while programming in B4

Implementation of TCP/IP protocol with KLab

Implemented TCP/IP protocol in C with mentors and other participants as an internship project in B4.

Implementation of bookmark functionalities to Firefox

Added additional bookmark functionalities to Firefox as a school project in B3. Built Firefox and modified the source code.