Sewen **Thy**

Backend Engineer · DevSecOps

12 College Ave West, Singapore 138610

+65 8892 2551 | ✉ s.thy@u.yale-nus.edu.sg | sewenthy | sthy

Work Experience

Credit Suisse
APAC Technology and Change Summer Analyst (Developer Experience Team)

Singapore

May. 2022 - Jul. 2022

- Built low-level long-running compliance checking services that can recover easily to give peace of mind and help to prevent legal actions.

ByteDance
Backend Engineer Intern, Technical Architecture (Message Queue Team)

Singapore

Jan. 2022 - May. 2022

- Enriched company wiki to ensure newcomers take less time getting up to speed on the system.
- Designed and built low-level long-running test services that can recover easily so integration test cases are always up to ensure critical system bugs are caught in early stages and prevent catastrophic failures.

BeLive Technology
Full-Stack Developer

Singapore

Jan. 2021 - Dec. 2021

- Full-stack development for analytics dashboard of streaming solutions that provide concrete feedback and drive business strategies for their live-streaming solutions.
- Developed multi-threaded backends in different lightweight frameworks (Python Flask, C++ Crow) to provide highly available, and responsive service.
- Facilitated seamless DevOps using Docker with Nginx that improved team backend reliability and portability to AWS and Google Cloud.

Yale-NUS College
Peer Tutor

Singapore

Jan. 2021 - Dec. 2021

- Peer tutor for Introduction to Computer Science and Functional Programming and Proving. Help each CS students with their personal approach which improve their understanding and write detailed reports about each session.

NUS, Faculty of Engineering
Research Assistant

Singapore

Aug. 2020 - Jan. 2021

- Setup data pipeline for processing with HPC and communicate effective team guidelines to improve productivity.
- Work with geo-spatial data to create models that can accurately predict port boundaries to increase team's capabilities to study GHG emissions and further advice government policy-making.

Edelman
DxI (Predictive Intelligence) Intern

Singapore

Jun. 2020 - Jul. 2020

- Ran EDA to inform better feature selection and engineering using NLP techniques which increased the effectiveness of the baseline model allowing thought leadership opportunity that drives business strategies. Assisted in a variety of projects in different industries including financial, and pharmaceuticals.

Yale-NUS College
Computational Biology Research Assistant

Singapore

Aug. 2019 - Dec. 2021

- Developed new functions to optimize linear programming processes and for better user experience through control over such processes. Migrated the software from Python 2.7 to Python 3.4 with detailed commits using GitHub.
- Maintained and managed intranet VMs for running models and helped with IDM for new students. Train new student developers in best practices and help build and project-manage for new feature developments for the scobra library.

Publication

Inferring Pointer Types for Translating C to Safe Rust
Co-Author

Conference

Oct. 2022

- Part of the team that implemented the rewriting from unsafe Rust to safe Rust.

Education

Yale-NUS College
B.S. (Hons) in Mathematical, Computational, and Statistical Science focusing on Computer Science

Singapore

Aug. 2019 - May. 2023

- Advance coursework in concurrency and program language design and implementations with a capstone about compiling unsafe Rust to safe Rust.
- CAP: 4.54/5.00