Sewen **Thy**

Backend Engineer · Concurrent and Distributed Systems · Programming Languages

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WORK EXPERIENCE

Ahrefs — *Singapore*

Backend Engineer — *Jul. 2023 - Present*

- Maintain and implement new relaible backend features.
- Participate in code review to ensure code quality.

Ahrefs — *Singapore*

Backend Intern — *Oct. 2022 - Apr. 2023*

- Maintained and implemented new features for monorobot which allows for richer control over notifications from monorepos to Slack.
- Rewritten internal orchestration tool from Javascript and bash into OCaml improving its concurrency guarantees, maintainability, and reliability.
- Consolidate uses of Slack APIs into an open-source library, which removes thousands of lines in duplicated code, significantly increasing maintainability.

Credit Suisse — *Singapore*

APAC Technology and Change Summer Analyst (Developer Experience Team) — *May. 2022 - Jul. 2022*

- Built long-running compliance checking services in Golang Gin that can recover easily to give peace of mind and help to prevent legal actions.
- Heavily practiced test-driven development (TDD) to significantly increase maintainability and development speed by incorporating at least 95% coverage for each Go package in the services using unit tests.
- Designed and maintained a full suite of integrated tests for a variety of scenarios ensuring all critical failures in our GitLab ecosystem are caught early and built many utilities for faster future tests development.

ByteDance — *Singapore*

Backend Engineer Intern, Technical Architecture (Message Queue Team) — *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 in Java 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 — *Singapore*

Full-Stack Developer — *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 — *Singapore*

Peer Tutor — *Jan. 2021 - Dec. 2021*

- Peer tutor for YSC1212 Introduction to Computer Science and YSC3236 Functional Programming and Proving. Helped each CS students with their personal approach which improve their understanding and write detailed reports about each session.

NUS, Faculty of Engineering — *Singapore*

Research Assistant — *Aug. 2020 - Jan. 2021*

- Designed and 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.

Yale-NUS College — *Singapore*

Computational Biology Research Assistant — *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.

EDUCATION

Yale-NUS College — *Singapore*

B.S. (Hons) in Mathematical, Computational, and Statistical Science focusing on Computer Sciences — *Aug. 2019 - May. 2023*

- Advance coursework in distributed systems and program language design and implementations. My capstone, *Borrowing without Sorrowing: Implementing Extract Method Refactoring for Rust*, won the Yale-NUS College's **Outstanding Capstone Prize for 2023**. [PDF]