

LEE KOON WEN

EDUCATION

YALE-NUS COLLEGE | BSc IN COMPUTER SCIENCE WITH HONOURS

August 2019 - May 2024

Final year student majoring in Computer Science with major GPA of 4.78/5.0

SELECTED COURSEWORK:

*Programming Operating Systems, Interfaces and eXtras | Functional Programming and Proving
Programming Language Design and Implementation | Parallel, Concurrent and Distributed Programming*

UNIVERSITY OF CAMBRIDGE | International Programmes Study Abroad

September 2023 - December 2023 | **Michaelmas term**

Coursework in Mathematics & Linguistics

TECHNICAL SKILLS

EXPERIENCED: OCaml · Python · C · Linux · Git

FAMILIAR: Coq · Scala · Java · GoLang · HTML · CSS · Javascript · R · SQL · MongoDB · Latex

WORK EXPERIENCE

Tarides | RESEARCH INTERN

April 2024 - September 2024 | **Paris, France / Cambridge, UK**

- Authored OCaml C-bindings library for libbpf and open-sourced it to opam
- Implemented tracing and visualisation tool for io-uring

Ahrefs | BACKEND ENGINEERING INTERN

May 2023 - August 2023 | **Singapore**

- Led initial migration work of the Backend code from OCaml 4.14.0 to Ocaml 5.0.0.
- Developed and deployed an OCaml integration service between the company's hiring platform and Slack to streamline HR operations. Used daily by the hiring team..
- Implemented type-safe data schema used for communication between company's OCaml-based main crawler and typescript-based internal service

Bytedance | SOFTWARE ENGINEERING INTERN

May 2022 - August 2022 | **Singapore**

- Implemented and coordinated the release of 3 new features for an internal FaaS monitoring tool that over 60 developer teams use.
- Attended to and resolved more than 3 platform related Manual OnCalls
- Performed platform usage analysis on a database with more than 20 million entries to advise platform billing plans for future users.

Tarides | RESEARCH INTERN

January 2022 - April 2022 | **Paris, France**

- Implemented a new hybrid networking stack for IoT devices. Achieved by correctly interfacing and writing C-bindings between Mirage-tcpip library and RIOT-OS Generic network stack.
- Wrote a custom event loop in OCaml that provides support for Lwt (OCaml concurrency library) by communicating with RIOT-OS event processing mechanism.
- Profiled and optimised memory usage of a MirageOS networking unikernel to fit on nRF2840-MDK board by reducing the OCaml runtimes static RAM usage by 98% (2.2Mb to 50Kb)

Thryft | SOFTWARE ENGINEERING INTERN

December 2020 - May 2021 | **Singapore**

- Automated the customer trade-in process by implementing instantaneous customer response emails, auto-generation of customer booking links and a one click courier pickup function
- Integrated customer status tracking into the company's daily used internal operation management system using ReactJS
- Documented bug report for company's database microservice API with 200 errors identified. Proceeded to update code and handle errors to solve 90% of recurrent issues
- Performed data wrangling and updated the company's document-based database with over 600,000 entries
- Contributed over 1000 lines of code changes to update the company's web scraping source code.