

LEE KOON WEN

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EDUCATION

YALE-NUS COLLEGE | BSc IN COMPUTER SCIENCE WITH HONORS

August 2019 - May 2023 (Expected)

Penultimate year student majoring in Computer Science with major GPA of 4.63/5.0

TECHNICAL SKILLS

EXPERIENCED: Python • OCaml • C • Flask • Git • Github • Linux • Bash

FAMILIAR: Scala • Java • HTML • CSS • Javascript • NodeJS • ReactJS • R • SQL • MongoDB • Jira • Latex

EXPERIENCE

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

PROJECTS

COMPILER PIPELINE

August 2021 - Present

- Implemented an entire compiler pipeline in OCaml which includes an assembler and simulator for a subset of x86-64 platform (x86lite), the backend compiler from LLVM IR language to x86lite, a lexer and parser with ocamllex and ocamlyacc and the frontend compiler from the (Oat v1.) language to LLVM.

OCCUPANCY MONITORING SYSTEM

July 2020 - Present

- Built and maintains a real-time occupancy reporting system of the schools gym for over a 1000 users to access
- Scripted a Python program to run on the Raspberry Pi to collect and process and send data to the cloud
- Developed webpage and API's to host and get information about the current occupancy levels from internal SQLite database
- Set up and configured virtual private server(VPS) to host the website
- Comprehensively documented work and set up automated testing with Travis CI
- Brought system from ideation into implementation by engaging school authorities to get administrative, legal and cyber security clearance

THE C PROGRAMMING LANGUAGE

September 2020 - May 2021

- Completed all 8 chapters with a total of 87 exercises in "The C Programming Language" book by Brian Kernighan and Dennis Ritchie
- Documented and published notes for the entire book on Github

CUSTOM LINUX OPERATING SYSTEM

June 2021 - July 2021

- Compiled a custom minimal Linux operating system for the Raspberry Pi referencing the LinuxFromScratch project
- Released cross compilation notes on Github

MISC

AVAILABILITY: December 2021 - August 2022

WORK AUTHORIZATION: Singapore Citizen; Eligible for the H-1B1-Singapore visa