

# SEAN YAN

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 [DHSYan](#)

## SKILLS

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**Languages:** Javascript/Typescript, C, Java, Python, Rust, Scheme(Racket), MMIX, HTML/CSS, LaTeX

**Tools:** React, NextJS, Flask, ExpressJS, Selenium, Pandas, Nix/NixOS, Git/GitHub, Linux, Vim, Bash, Testing VSCode, SSH, VirtualBox/VMware, Automation, Raspberry Pi, Excel, Word, MacOS, Windows

## EXPERIENCES

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**Mathematics & English Tutor** Taichung, TW  
Meiko School

05/2023 - 07/2023

- Tutored students from years 1 - 12 in Mathematics and English.
- Improved students' school Mathematics test scores from 46% to 96%
- Helped students gain confidence in the topics of mathematics through lively teaching.
- Written quality reports to help parents better understand students' performance in sessions and provide comments on ways to continuously self-improve in the field of math.

## PROJECTS

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### PRIMPL Assembler, SIMPL Compiler

- Programmed both a compiler and an assembler for an imperative language and an assembly-type language.
- Developed a strong understanding of core programming and computer science concepts, such as memory management, low-level computer architecture, data structures and algorithms.
- Understood and applied the knowledge of the stack, the heap, stack frames, stack and frame pointers.

### Nix Config; Infrastructure as Code (Never manually configure your OS again)

- Developed declarative, reproducible Nix configurations to ensure identical OS setups across systems.
- Implemented infrastructure as code to automate system rebuilds, eliminating manual provisioning.
- Acquired deep understanding of Linux systems by daily driving NixOS, and increased efficiency by 100%

### .dotfiles - Personalized Software Development Workflow

- Experienced with NeoVim with Lua, Bash scripting, Automation, and Terminal Multiplexer.
- With 600+ commits, developed a strong skill of managing Git/Github workflow.

### Terminal Chat App (built 100% in C)

- Engineered a Terminal Chat App using C, TCP, UDP, Sockets, Threads
- Supports multi-user login, private messaging, broadcast messaging and media transfer.
- Acquired skills of multi-threaded programming, network programming and low-level programming

## VOLUNTEERING

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**Farmer** Miaoli County, Taiwan  
Local Farm in Taiwan

07/2022 - Present

- Worked on a local farm in Taiwan, to help plant trees, banana plants, and general maintenance of gardens.

**Speaker of the Student Parliament** North Vancouver, BC  
Bodwell High School

02/2022 - 06/2022

- Led and managed all meetings that the parliament conducted, and developed communication and interpersonal skills.

**English Teacher** Taichung, TW  
Team Alpha

07/2020

- With minimal supervision, volunteered to teach English to local Taiwanese primary school students for 8 hours/day.

## EDUCATION

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**University of British Columbia**

09/2023 - Present

**Program:** Bachelor of Science

**Major:** Combined Major in Science

**GPA:** 4.33/4.33

**Extra-curricular:** Ultimate Frisbee