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Fresh Graduate with Bachelor of Computer Science
in University of Waterloo.

Seeking a full-time job for Software Engineer, Full Stack positions

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Projects

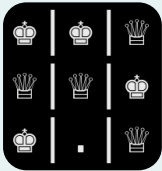
Pitch-Perfectly-Accurately-Practice

A[#]₄

It helps user practice absolute and relative pitch by asking a question of note(s) for user to sing.

- demo video: youtu.be/JqUM81U_XtY
- android app written in java
- note, graph, interval, triad, song mode
- repo: github.com/alexlai97/Pitch-Perfectly-Accurately-Practice
- available on google play store

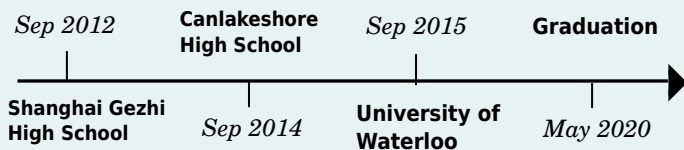
Tictactoe-rust



It is the tictactoe game you already knew. It supports some customization and change of playing mode, e.g. computer vs. computer (CVC).

- demo: asciinema.org/a/IVepEy0xVejGnmcGf0anfTM7u
- command line app written in rust
- PVC, PVP, CVC mode
- repo: github.com/alexlai97/tictactoe-rust

I studied at



I lead

- **Pitch-Perfectly-Accurately-Practice Project** by initiating online meetings for discussing developing progress, mediating members' workload depending on their available time slots
- as a group leader in a **Buddhism discussion group** (less than 6 member) for 4 years by scheduling online meetings for discussion of things we learned in that week

I designed

- **blueprint** for Pitch-Perfectly-Accurately-Practice project as the final appearance of the app, which can be found at:
alexlai97.github.io/Pitch-Perfectly-Accurately-Practice/
- this **resume** in inkscape (a vector graphics editor) from scratch

I value

- **appreciation**. It makes the quality of my work better.
- **life**. We both can think and feel.

I love

- **rust** (programming language). The ecosystem makes me feel involved. It is fast and safe. I am still learning more about how to write idiomatic rust.

I use

- **linux** for 4 years. Currently living on Archlinux. I like that I can customize things to how I want. Here are my dotfiles:

github.com/alexlai97/dotfiles

- **LaTeX** to summarize course notes, which can be found at:

tex.alexlai.xyz

I speak

- **mandarin, english**

- these programming languages:

Rust ★★★★★ Java ★★★★★ Racket ★★★★★
C++ ★★★★★ Python ★★★★★ html/js/css ★★★★★
C ★★★★★ assembly ★★★★★ shell script ★★★★★

I learned in

- **operating system** course to implement locks, system calls like fork, execv, part of dumbvm for OS/161 in c
- **security** course to exploit vulnerabilities in c programs and a blog website as well as to keep a mindset of an attacker while following spiderman rule
- **algorithm** course to solve problem using techniques such as greedy algorithm, dynamic programming
- **compiler** course to write a compiler in c++ for WLP4 (a c-like language) for MIPS architecture
- **distributed systems** course to implement functions in c++ on client and server side to integrate with libfuse and rpc library for WatDFS, a simplified distributed file system

Work experience

Guide Analytics Inc, Waterloo, ON
Volunteer, Oct 2019 - Jan 2020

As a research assistant, I learned how to design and conduct **interviews**. I learned **agile** development style, and applied it to personal use to organize things to do weekly. And I helped with the setup and **CI** of the documentation website