## JINYANG YAO

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### **EDUCATION**

The University of British Columbia, Kelowna, BC, Canada

2017-Present
Current third year undergraduate student. Major in Computer Science, minor in Mathematics

### WORK EXPERIENCES

• 2016 Summer: Shanghai Liyang Software

First time working for a tech company.

• 2019 Summer: Chongqing University HVAC department

Developed an optimization program to find the optimal building design to minimize the energy consumption and cost.

• 2019 Summer: Chongqing University HVAC department

Participated the "Yangzi River area air conditioning and heating solution and its corresponding systems" in the HVAC department (in civil engineering) of Chongqing University. Designed and implemented the project's web platform.

### **PROJECTS**

# Chongqing University's HVAC platform github.com/ailrk/135Server

A flask backend for the Chongqing University 135 HVAC project. It collect and manage temperature and humidity data from different sources the Chongqing University worked with from 2019.

Chongqing University's HVAC frontend github.com/ailrk/135client-react

A react and typescript based frontend for the aforementioned project.

### A static blog markdown manager

github.com/ailrk/markdowndb.macro

Blog building tool. Managing markdown files at compile time and providing easy to use runtime interface.

## A toy compiler made with haskell

github.com/ailrk/naplang

A compiler for a toy imperative language, it compiles to llvm-ir with haskell llvm binding.

### **SKILLS**

- Programming Language: Familiar with Python, TypeScript, Haskell, Rust, C, C++, Racket.
- CPython: 4 years of experience: Familiar with flask web framework and sqlalchemy database ORM. Understand underlying Cpython data structures' implementation in C. Familiar with python concurrency model.
- Web developement Familiar with Flask, React, Vuejs, Nodejs, and Sqlite.
- Compiler: Familiar with parsing techniques and compiler optimization process. Worked with some llvm and babel AST code transformation.
- Math: linear programming, dynamic system, number theory, abstract algebra
- Language: Have been living in English Speaking country for more than 3 years, received band 7 for IELTS in 2017. Native Chinese speaker. Learning Japanese.

### COMMUNITY EXPERIENCES

2019 Summer: Joined UBC programming competition.