

# JINYANG YAO

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## EDUCATION

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**The University of British Columbia**, BC, Canada 2017 – 2021  
B.S. Honor in Computer Science, Minor in Mathematics, Avg 86.9/100, GPA 3.95/4.33

## EXPERIENCE

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**Flint Healthcare** Fullstack Vancouver, Canada, 2022 Jan -2024 May

Flint maintains a scalable platform that helps US hospitals to source, licence, and onboard international talents.

- Designed and implemented a CQRS and event sourcing based architecture in Haskell.
- Implemented and maintained various business services in Haskell and Elm.
- Maintained the kubernetes cluster.
- Maintained the CI and deployment process with docker, nix and github action.
- Implemented tools to improve automation of development and operation processes.
- Interviewed software developer candidates.

**Chongqing University** Intern Chongqing, China , 2019 Summer

Joined a project that aims to Optimize the thermal efficiency of building designs.

- Implemented a program to select the optimal building design that satisfies some multi-objective constraints.
- Implemented a web platform that collects, manages, and displays temperature data from sensors installed across provinces.

**UBC CS honor program** 2020 - 2021

Using machine learning technique (semi-supervised learning) to assess first year programming assignments.

## PERSONAL PROJECTS

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**cppparsec** [github.com/ailrk/cppparsec](https://github.com/ailrk/cppparsec)

A C++ monadic parser combinator inspired by Haskell's Parsec library.

**Blgol60** [github.com/ailrk/blgol60](https://github.com/ailrk/blgol60)

A Haskell implementation of Algol60.

## SKILLS

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- Programming languages: Experienced in Haskell, Elm, F#, Typescript, Python, C++; comfortable with C, C#, Racket, Matlab, Erlang
- Web development: RESTFUL api designs, CQRS, Event Sourcing, DDD modeling, PostgreSQL, RabbitMQ, React, Elm, Vue, System design
- Programming language theory: Denotational semantics, Lambda Calculus, Type theory, Abstract machine
- Compiler: Embedded DSL, External DSL, Parsing techniques, Familiar with various program analysis techniques and backend optimizations.  
DevOps: Github actions, nixbuild.net, cachix, Docker, ssh
- Tools: Git, CMake, Makefile, Nix
- Platforms: Linux system programming
- Team: Worked with teams that used Slack, Notion, Bitbucket,
- Others:
  - English - Fluent, Chinese - Native.
  - Personal site: <https://ailrk.github.io/home>