

## SKILLS

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### Languages

• Javascript • Typescript • HTML5 • CSS3 • Python • C • C++ • SQL • R • Bash

### Frameworks / Technologies

• React • Next.js • Express • Node.js • Redux • Firebase • MongoDB • MySQL • Git • Windows • MacOS • Linux

## WORK EXPERIENCE

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### Full-Stack Developer | Toronto, ON

Jan 2021 - Apr 2021

*Honeybee Hub Inc.*

- Optimized search engine through integration of **MongoDB Atlas Search** aggregation pipeline which improved accuracy of results for participants and visibility of posted studies for researchers
- Developed referral system that increased user engagement of enrolled studies by 300% over span of one month
- Integrated full-stack feature that simplified transfer of cash and gift card rewards through use of **Tremendous API**
- Led agile web development team in implementation of participants' user profile data collection system that allowed for more precise recommended studies and personalized user experience

### Web Developer | Montreal, QC

May 2020 - Aug 2020

*Apptitude Inc.*

- Designed and developed web application offering streamlined subscription-based video calls to connect students to their instructors, which won 2020 E-Launch Award among 50+ startups
- Established network socket connection to allow peer-to-peer audio and video communication using **WebRTC** and integrated metered billing model using **Stripe API**
- Managed increasing complexity in testing and code management that entailed from app growth by adding **Redux** state management to **React** front end

## PROJECTS

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### Python Chess Program

[github.com/vicswu/chess-python-AI](https://github.com/vicswu/chess-python-AI)

- Created classic chess game with fluid animations using **Pygame** module
- Displayed complete move log and all possible moves for selected pieces
- Implemented option to play against AI using minimax algorithm with adjustable depth to determine optimal move

### MapChat

[github.com/vicswu/MapChat](https://github.com/vicswu/MapChat)

- Developed location-based messaging app with **MongoDB** collection, **Express** server, **React** and **Node.js**
- Allowed users to create public chatrooms on map rendered with **Google Maps API** and to message each other in real time thanks to **Socket.IO**

## EDUCATION

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### University of Waterloo | Waterloo, ON

Sep 2019 - Apr 2023

*Bachelor of Computer Science*

• University of Waterloo President's Scholarship (above 90%+ average) • Working towards Economics Minor

### Relevant Courses

• Algorithm Design and Data Abstraction and Data Abstraction (C) • Object-Oriented Software Development (C++)