

# Shawn Au

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## EDUCATION

### UNIVERSITY OF WATERLOO

HONOURS BACHELOR OF COMPUTER  
SCIENCE

Aug 2017 | Waterloo, ON

### UNIVERSITY OF ALBERTA

BACHELOR OF COMMERCE  
Jun 2013 | Edmonton, AB

## SKILLS

### PROGRAMMING

Proficient

Java

Familiar:

C++ • CSS • JavaScript •  $\text{\LaTeX}$  • MySQL •

PHP • Python • TypeScript

Exposure to:

C • Clojure • Matlab • Racket • Scala

## PROJECTS

Wrote a ray tracer with the ability to render images with soft shadows, antialiasing, reflection, refraction, and depth of field

Developed a chess program with human and cpu player capabilities using C++

Created a web interface that fills out PDF forms using PHP and the FPDF library

## INTERESTS

Badminton

Volunteering

Bouldering

## EXPERIENCE

### WATCH HABITAT (CEASED OPERATIONS NOV 2019)

SOFTWARE DEVELOPER

Aug 2019 – Nov 2019 | Toronto, ON

*Tools: Typescript, Javascript, PostgreSQL, Prisma, Apollo GraphQL, AWS, Netlify, FusionAuth, Git*

- Watch Habitat was a streaming service with an ecommerce platform
- Built and deployed a serverless backend with a GraphQL API
- Built full functionality mockup for entire site
- Set up primary sign-in mechanism for entire website
- Configured and deployed the database on AWS and set up database access and schema migration

### BLOCKCHAIN MARKETS (ACQUIRED BY BITBUY DEC 2018)

SOFTWARE DEVELOPER

Dec 2017 – Aug 2019 | Toronto, ON

*Tools: Java, Javascript, PostgreSQL, Solace, Spring, Liquibase, Hibernate, Protobuf, Google Cloud, Kubernetes, Cloud Pub/Sub, Angular, STOMP, Maven, Docker, Git, Jenkins*

- Built software with a microservices architecture running on Google Kubernetes Engine with Solace messaging
- Implemented failover mechanism in all microservices in the case of system failure
- Investigated best security practices and implemented authentication and authorization for the entire application
- Created and maintained REST API endpoints that handle hundreds of request per second
- Developed authentication generation system for crypto wallets to account for regularly expiring credentials
- Responsible for most database-related tasks such as structural changes, performance improvements, and migration scripts
- Set up, configured, and deployed microservices to Google Cloud
- Created market states to mimic stock exchanges. This includes rejecting new orders during a closed state, allowing orders but no matches during a preopen state, and matching existing orders when transitioning to an open state using a maximal matching algorithm
- Investigated DDos attack traffic and implemented reCAPTCHA requirement to address it

### ACHIEVERS | INTERN SOFTWARE DEVELOPER

Sep 2016 – Dec 2016 | Toronto, ON

*Tools: PHP, Javascript, MySQL, Backbone.js, Handlebars.js, jQuery, React, Docker, Git, Jenkins*