

# 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

## LINKS

Github: <https://github.com/s7au>

## COURSEWORK

Algorithms  
User Interfaces  
Operating Systems  
Numerical Computation of Financial  
Modeling  
Applied Cryptography  
Distributed Systems  
Intro to Artificial Intelligence  
Intro to Computer Graphics  
Big Data Infrastructure

## 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 | SOFTWARE DEVELOPER

Aug 2019 – Nov 2019 | Toronto, ON

- Watch Habitat was a streaming service with an ecommerce platform
- Developed a frontend application in Gatsby that was deployed using Netlify
- Built and deployed a serverless GraphQL API as a Netlify Lambda function
- Set up OAuth and SSO by integrating FusionAuth
- Configured and deployed a PostgreSQL database on AWS and set up database access and schema migration using Prisma
- Gated user access by allowing only subscribed users to view videos from VHX, our video platform

### BLOCKCHAIN MARKETS (NOW BITBUY) | SOFTWARE DEVELOPER

Dec 2017 – Aug 2019 | Toronto, ON

- Built software with a microservices architecture running on Google Kubernetes Engine with Solace messaging
- 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
- Implemented failover mechanism in microservices that are reliant on a Solace replay queue instead of the database to recover
- 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. Used Liquibase changesets to affect a PostgreSQL database.
- Setup a Squid proxy service to access external resources through a whitelisted IP. Later changed this to use a NAT gateway setup using Terraform
- Set up and configed Java microservices so that they can be deployed to Google Cloud using a Jenkins pipeline
- Incorporated STOMP websockets into the application
- To prevent DDoS attacks, implemented reCAPTCHA requirement upon multiple failed logins

### ACHIEVERS | INTERN SOFTWARE DEVELOPER

Sep 2016 – Dec 2016 | Toronto, ON

- Wrote backend features with PHP and MySQL, with corresponding frontend changes using Backbone.js, Handlebars.js, jQuery, and React