

Shawn Au

shawn.hui.au@gmail.com | 780.905.3448

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

BLOCKCHAIN MARKETS | SOFTWARE DEVELOPER

Dec 2017 – Present | 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
- Created caching mechanism for regularly requested data to improve API performance
- 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
- Facilitated upgrades of Spring and Hibernate versions
- Responsible for initial setup and configuration of 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
- Designed random PIN sessions for customer service purposes
- Facilitated Spring log translation to Google Cloud Stackdriver standards
- Worked closely with UX designers to implement various features on an Angular frontend application such as empty states, loading delays, charting, sign-in flow, etc.
- Collaborated with the team to determine current deployment flow with topics including internal library version control between environments, deploying to production, hotfixes, etc.

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