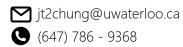
# Jonathan Chung github.com/chjon jonathanchung.xyz





#### Skills

Languages: C++, C, JavaScript, Java, HTML5, CSS, Python

Technologies: DirectX 12, Firebase, Redis, Flask, Linux, DynamoDB, S3, GCP, Git

### Experience

2019 Software Development Intern, Darkvision Technologies Inc. (Vancouver, BC)

Worked on data visualization tools and features in C++ for an ultrasound-based 3D imaging device

- Implemented a tiled HEVC video codec to optimize GPU encoding and maximize throughput
- Migrated a visualization tool to DirectX 12 HLSL to improve performance and maintainability
- Created a specialized graphing tool to correlate datasets using immediate mode graphics

2019 Game Programmer Intern, Behaviour Interactive (Montreal, QC)

Worked on backend features for multiple video games in a RESTful microservice architecture Jan - Apr

- Restructured object collection and reward systems using JavaScript (TypeScript) with Node.js
- Designed a rich presence system to broadcast and log player activity with Redis and DynamoDB
- Implemented first-party microtransactions for purchasing game items using Nintendo's REST API

2018 Software Developer Intern, Universe Projects Inc. (Toronto, ON)

Worked on adding features and improving infrastructure for a cross-platform video game

- Redesigned item collection infrastructure for a data-driven content generation system using Java
- Implemented a system for synchronizing game objectives using Google Cloud Datastore
- Built GUI components and developed a configurable visual effects system using LibGDX

2016, 2017 Software Development Intern, New York Theological Education Centre (Markham, ON)

Developed a library management application using MySQL and VBA

- Developed a library database system to manage thousands of books and hundreds of users
- Built an application for borrowing books, identifying overdue books, and calculating fines

## **Projects**

InfiniteChess, chjon/InfiniteChess (7) 2019

Chess on an infinite board with customizable rules written in C++ using the SFML OpenGL library

2017 BlockGame, chjon/BlockGame

A multi-threaded physics engine and block-based sandbox game written in Java

## Education

Candidate for B.ASc, Honours Computer Engineering, University of Waterloo

Cumulative Average: 91.23% | Dean's Honours List (4 Terms)

Sep - Dec

May - Aug

Jul - Aug

Aug - Sep

Jan - Mar

2017 - 2022