### KIRBY CHIN



#### **EDUCATION**

#### **University of Toronto**

Sept. 2017 to May 2022

Candidate for Bachelor of Science in Computer Science

#### **SKILLS**

**Programming**: Bash, C++, Java, JavaScript, PHP, Python

Tools: MySQL, JUnit, Kubernetes, Docker, Prometheus, Grafana, Elastic Stack, OW2 ASM

#### **EMPLOYMENT**

## **University of Toronto Institute for Aerospace Studies**

May 2021 to Aug. 2021

#### **Web Based Application Programmer**

- Developed a virtual drone build and fly simulator in Angular using Three.js and Phaser 3.
- Designed part selection interface with a 3D mesh viewer and obstacle course with Matter.js physics.
- Collected 3D drone assets and altered them in Blender to create custom 2D sprite sheets.

# **Kidney Health Education and Research Group**

Oct. 2020 to Feb. 2021

#### **Software Developer**

- Updated and secured multiple (5) WordPress websites on a daily and on-call basis.
- Integrated Google Drive API file storage management on an academic paper writing tool in PHP.
- Generated cron jobs that serve automatic email reminders to employees for payroll and work updates.

#### IBM Canada Ltd.

May 2019 to Aug. 2020

#### **Full Stack Software Developer Intern**

- Developed Java printStackTrace() method override using Java reflection and Bytecode injection.
- Updated and migrated software tools running on Red Hat Enterprise Linux and AIX.
- Provided customer service for multiple (3) managerial reporting tools.
- Bypassed breaking changes in IBM Java SDK 8 that prevented IBM internal products from updating.
- Configured application monitoring on a microservices-based application in Red Hat OpenShift.
- Deployed CI/CD pipeline using Tekton and ArgoCD for a web application on IBM Cloud Private.
- Created Grafana dashboard for Microprofile Metrics.
- Wrote Docker Compose scripts for building up Prometheus/Grafana and Elastic Stack instances.
- Published a blog article on centralized logging using Websphere Application Server.

#### **PROJECTS**

#### **Eidos Engine (C++ Graphics Renderer)**

Dec. 2020 to Current

- Developed an object renderer in C++ using OpenGL for development of a game engine.
  - Created basic objects and implemented picking using ray casting.
  - Supports Wavefront file meshes and integrates Phong Tessellation.

#### **Dynasty House Restaurant Website** (Full Stack Web Development)

Sept. 2018 to Current

- Developed a restaurant website in React, Node.js, MySQL and Nginx.
  - Previously developed and migrated the website off of a LAMP stack.
  - o Secured and maintained a Linux Ubuntu server using virtual hosts.

#### **Arcade Wonderland (Android/Java)**

Aug. 2018 to Feb. 2019

- Created a rhythm game using Java with OpenGL for Embedded Systems.
  - Used an open source library to parse MIDI files for generating beat sequences.

#### **Menu Select** (Qt/C++ Receipt Printer)

Jul. 2018 to Aug. 2018

- Receipt printing software that translates numeric orders into text printable receipts written in Qt.
  - o Connects to a local SQLite database to retrieve and calculate total prices
  - Tested on EPSON TM T2OIII thermal receipt printer.

#### REFERENCES

• References available upon request.