Professional Summary \_\_\_\_\_

Software Engineer with 8+ years experience developing efficient object oriented code. I am passionate about developing modular game-play code and tools to allow for easy implementation and iteration. I have been working on game projects both individually and as part of a team, my team finished our competitive MOBA/RTS asymmetrical PVP game. I recently was awarded 2nd place in Ubisoft NEXT for my project, in which I made my own 3D math library and ECS game engine. Both of these projects can be found on my portfolio website.

## Skills

C++ A\* path-finding **ECS** Engine Implementation **Steering Behaviors** Unity OpenGL Mini-Max Behaviour Trees Object Oriented Programming Team Player Inverse Kinematics Problem solving HLSL/GLSL SFML 3D math Mixin Design Pattern

### Education

**Sheridan College** Oakville, Canada

ONTARIO COLLEGE GRADUATE CERTIFICATE, GAME DEVELOPMENT: ADVANCED PROGRAMMING

- · Game engine architecture
- Implemented Entity Component system architecture in C++
- Worked with Unity engine and C# to implement Gameplay, UI and AI
- A\* path-finding, Behaviour trees, Mini-Max with pruning, Finite State Machines

### Toronto Metropolitan University (formally known as Ryerson University)

BACHELOR OF ENGINEERING, COMPUTER ENGINEERING

- Advanced Algorithms, Software Architecture, Image Processing
- · Networking, Network Security
- Digital Systems Engineering, Database Systems, Embedded programming
- Linear Algebra, Calculus

Unity online

UNITY CERTIFIED ASSOCIATE PROGRAMMER

• Proficient in programming, UI, debugging and asset management in Unity

## Work Experience \_\_\_\_\_

#### **Gameplay Programmer** Toronto, Canada

ALWAYS SNACKING STUDIOS - SHERIDAN

KUBRA

STOCK RENDER

- Working with a team to make a RTS game for our capstone project
- · Implementing the Mixin design pattern to build a data-driven system to create modular gameplay features
- The Project can be found here https://always-snacking-studios.itch.io/the-big-vs-them-all

**Data Analyst** Toronto, Canada

• Registered print jobs through proprietary Kubra software.

- Data validation of all registered print orders
- Made changes to code to resolve errors using C++ and visual basic

### **Software Engineer** RYERSON UNIVERSITY

• Developed a cloud based power-flow assessment tool as my capstone project

- · Work with Ruby and JavaScript using AWS services, to perform Newton Raphson algorithm for loads, busses, and generators
- Published a technical document with IEEE https://ieeexplore.ieee.org/document/9025140

#### **Software Engineer** Toronto, Canada

- September 2016 December 2016 • Work with startup team to develop stock processing website
- Developed JavaScript algorithms to analyse and organise data from a SQL database

Toronto, Canada

2015 - 2019

Winter 2021

May 2023 - August 2023

May 2020 - August 2020

Toronto, Canada

September 2018 - April 2019

Office Assistant Toronto, Canada

TORONTO CATHOLIC DISTRICT SCHOOLBOARD

- Took student attendance, called parents of absent students
- Handled any issues that arose at the school

Physics tutor Toronto, Canada

PRIVATE TUTOR

• Tutored high-school physics, helped students prepare for exams

2019-2020

July 2012 - August 2019

### **Honors & Awards**

2023 Game Engine in a month. I then built a bomber-man inspired game in one weekend. For the engine I made a math library to create a 3D game with a dynamic camera using the 2D graphics API provided by Ubisoft

2019 Toronto Hydro Student award 2018/2019, Awarded to the student group that created a web application that could be used by Toronto Hydro in a real life application

2019 Ryerson Capstone Design Project Excellence Award Gold, Awarded to best capstone project for Ryerson Engineering

7 Toronto, Canada

2019 Toronto, Canada

# **Extracurricular Activities**

- Game design and development
- Interest in computer hardware, built multiple computers
- Avid cyclist
- · Video game and table top game enthusiast, DND, MTG