

# Adriano Mazzucco

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## Education

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### Sheridan College

Oakville, Canada

ONTARIO COLLEGE GRADUATE CERTIFICATE, GAME DEVELOPMENT: ADVANCED PROGRAMMING

2022 - 2023

- 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 (formerly known as Ryerson University)

Toronto, Canada

BACHELOR OF ENGINEERING, COMPUTER ENGINEERING

2015 - 2019

- 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

Winter 2021

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

## Work Experience

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### Gameplay Programmer

Toronto, Canada

ALWAYS SNACKING STUDIOS - SHERIDAN

May 2023 - August 2023

- 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

KUBRA

May 2020 - August 2020

- 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

Toronto, Canada

RYERSON UNIVERSITY

September 2018 - April 2019

- 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

STOCK RENDER

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

### Office Assistant

Toronto, Canada

TORONTO CATHOLIC DISTRICT SCHOOLBOARD

July 2012 - August 2019

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

### Physics tutor

Toronto, Canada

PRIVATE TUTOR

2019-2020

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

## Skills

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### Unity Engine

- Implemented A\* path-finding algorithm
- Implemented Inverse kinematics algorithm for animating 3D models
- Implemented Mini-Max algorithm for tic-tac-toe and connect four
- Created and published game for android devices

### Programming Proficiency

- C, C++, C#, Java, JavaScript, Python, Lua, VHDL, Verilog, Assembly, .net, OpenGL, MonoGame, SFML, HLSL, GLSL,

## Honors & Awards

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	<b>2nd Place Ubisoft Next programming competition 2023</b> , To achieve this award I built an entity component system	
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	<i>Toronto, Canada</i>
2019	<b>Toronto Hydro Student award 2018/2019</b> , Awarded to the student group that created a web application that could be used by Toronto Hydro in a real life application	<i>Toronto, Canada</i>
2019	<b>Ryerson Capstone Design Project Excellence Award Gold</b> , Awarded to best capstone project for Ryerson Engineering	<i>Toronto, Canada</i>

## Extracurricular Activities

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