

# Cody Gordon

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## Profile

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Dedicated and eager to learn software developer with a passion for the games industry. Two to three years of professional quality programming experience in various engines and languages and upwards of 8 years of amateur experience as a hobby. Worked as the sole developer on a team to produce and ship an engaging, educational children's game from a set of learning goals. Gained experience in the indie development workflow through the ongoing process of publishing an independent title. **Technical Skills**

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### Programming Languages

- C/C++
- C#
- Java
- Python
- SQL

### Tools and Technology

- Unreal Engine 4/5
- Unity Engine
- Git/Github/Gitlab
- Visual Studio
- AI Algorithms

## Education Bachelor of Science (Honours) Computer Science (Minor) Mathematics

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University of Manitoba, **Achieved: June 2024**

Winnipeg, Manitoba, Canada

**Relevant Coursework:** Introduction to Artificial Intelligence (COMP 3190), Databases Concepts and Usage (COMP 3380), Database Implementation (COMP 4380), Computer Graphics 1 (COMP 3490), Software Engineering 1 (COMP 3350), AI Honours Thesis (COMP 4522)

## Work Experience

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### Contracted Software Developer

Canadian Centre for Child Protection

### Winnipeg, Manitoba, Canada

September 2020 – January 2023

### [Project Link](#)

- Developed and architected a C++ framework using Unreal Engine 4 following the AGILE methodology to facilitate rapid iteration/prototyping
- Worked with a design team to create and ship a point-and-click adventure style educational experience

- Used an Unreal Engine 4 source build to customize the Emscripten C++ to JavaScript pipeline
- Worked extensively with Unreal Engine 4 Blueprint and widget systems to realize a cohesive narrative

## **Lead Coding Instructor**

**Winnipeg, Manitoba, Canada**

Code Ninjas Winnipeg

August 2019 – Present

- Worked to facilitate children's education in programming through curriculum supplementation and staff training/coordination
- Developed engaging summer camp curriculum for programming related to game development and the design process
- Instructed students one-on-one with a focus on developing the skills needed for them to pursue their personal projects
- Specialized in assisting advanced and/or struggling students with finding appropriate, attainable, and yet challenging work
- Worked with an administrative team to identify staff – student issues and assist in developing strategies to better facilitate education
- Built rapport with clients resulting in a high rate of sign-ups by developing a deep understanding of their children's engagement level and interest in the programs

## **Projects**

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### **Undergraduate Honours Thesis**

**Winnipeg, Manitoba, Canada**

University of Manitoba

September 2023 – April 2024

#### **[Project Link](#)**

- Created a simulation in C# using Unity Engine to evaluate multi-agent AI systems for the purpose of a research paper
- Expanded upon existing research by performing a smaller-scope, fine-grained analysis of communication techniques in multi-agent systems
- Implemented Quad Tree based pathfinding and collision prevention algorithms in C#
- Utilized the Software Development Lifecycle concept to maintain an organized and maintainable repository using Git
- Developed system-spanning documentation for the purposes of software reusability in further research

### **Indie Game Project**

**Winnipeg, Manitoba, Canada**

Personal

January 2023 – Present

**[Project Link](#)** • Developing a match-based multiplayer Roguelike using C# and Unity as an individual developer

- Working with the Steamworks partner program and Steam Networking Services to setup a production environment for release
- Utilizing the Software Development Lifecycle and Agile programming methodologies to manage a largely scoped project as an indie developer
- Implemented client-side prediction to smooth fast-paced networked gameplay
- Implemented a class/ability based third-person shooter that is fully network compatible

## Procedural Landscape Generator

Winnipeg, Manitoba, Canada

Personal

January 2023 – June 2023

### [Project Link](#)

- Developed a Perlin Noise based procedural landscape generator using C# and Unity Engine
- Added functionality to include procedural room/tile generation and maze generation
- Utilized linear algebra and 3D geometry to construct meshes in real time for landscape and landscape features dynamically on the vertex level
- Implemented object pooling techniques to facilitate fast procedural foliage generation and placement

## Game Jams

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[Winnipeg Game Jam](#) (Participant) - [i-beelieve-i-can-fly](#) - Unity C#

[JameGam 27](#) (Participant) - [sky-swap](#) - Unity C#

[2022 Epic Mega Jam](#) (Participant) - [breaking-point](#) - Unreal Engine C++/Blueprint

[2021 Epic Mega Jam](#) (Participant) - [tile-town](#) - Unreal Engine C++/Blueprint

[The Completion Jam](#) (Participant) - [simply-misunderstood](#) - Unity C#