# **Thompson DeLair-Dobrovolny**

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#### **EDUCATION**

## British Columbia Institute of Technology

2022

## **Bachelor of Technology, Computer Systems GPA 85%**

- BCIT Computer Systems Award in Technical Programming, Superion Inc. Award
- OOP, Computer Architecture, Games Architecture, Advanced Algorithms, Project Management

#### Vancouver Film School

## Diploma, Game Design GPA 89%

2014

- Unity, Unreal Engine 4, Autodesk Maya
- Covered game design process from pitching, prototyping, creating comprehensive game design documents, creating code and art assets, and evaluated projects post-mortem

#### **TECHNICAL SKILLS**

Languages C, C++, C#, Python, Java, Javascript, Typescript, SQL, Swift

Game Development Unity, Unity DOTS, Photon for Unity, Godot, OpenGL, Shaders, Physics/Collision, Pathfinding, ECS

Web Nodejs, Angular, HTML, CSS General Git, Multithreading, MVC, MVP

#### **EXPERIENCE**

## Unity Developer, Pixelific Games

2019

- Paid to continue work on school practicum project over the summer
- Worked in a team to port a pre-existing video game prototype into the Unity engine and expand on features
- Responsible for adding animation systems to all dynamic aspects of game, overhauling existing systems to allow for multiple players for online play, bug fixing, and testing
- Successfully implemented multiplayer using Photon and deployed to Windows desktop and chrome webapp

## Crew Member, McDonalds Restaurant

2012

Worked front counter. Served guests, assembled orders, and completed misc tasks when required

## **PROJECTS**

# Personal Project Unity, Unity DOTS, C#

2018 - Ongoing

- Created 2D pathfinding, navigation, and movement from scratch
- Researched various algorithms to generate Triangular Navigation Meshes, iterated and improved on code to increase performance and add multithreading
- Implemented multi thread capable collision system

# Game Design School Project Unity, C#

**BCIT 2020** 

- Worked in a team of 3 to create a top-down shooter game with 3D graphics
- Responsible for core game systems: movement, collision, ai, pathfinding, terrain, line-of-sight, and more
- Created map editor tool and game entity authoring structure to help developers create content faster

## Game Engine School Project C++, Opengl, GLFW

**BCIT 2021** 

- Part of a 12 person team creating a 2D game engine from scratch
- Responsible for ECS system and helped coordinate overall integration between different team's systems
- Identified performance bottlenecks and helped implement optimization

# Final Major School Project Unity, Unity DOTS, C#

**BCIT 2022** 

- Implemented thread safe systems to update AI in batches based on world space proximity
- Implemented query and AI result caching to allow AI agents in close proximity and with similar internal states to re-use AI decision-making results to reduce the number of times the AI behavior function needs to be run