

Josh Colwell

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- Summary**
- 3+ years of experience with C\C++
 - Experienced with C#, Unity3D and Visual Studio
 - Working knowledge of source control (Git\Team Foundation Server\TortoiseSVN)
 - Familiar with Java, Golang, Concurrency, and Qt
 - Basic understanding of Networking and MySQL

- Experience**
- Component-based Gameplay** *(January 2016 – March 2016)*
- Added a component-based gameplay layer to an existing 3D Engine
 - Game objects are data-driven in XML and are instantiated using the factory pattern
 - Features Meta System to provide Runtime Type Information to simplify recognition and creating of component
 - Features a type specific Memory Pool for stronger memory management. Used by the Game Object Factory to track all game objects

- Game Production Workshop** *(August 2015 – March 2016)*
- A series of courses designed to simulate industry production life cycle in a cross-functional team environment
 - Developed a game for the Android platform using Unity in collaboration with a research group from SFU; who is studying the benefits of educational games on older adults
 - My team's game is *Modern Mischief*; a 3rd person stealth game where you navigate through a museum, avoiding security measures to correct mistakes in exhibit information
 - As the project's Lead Programmer my responsibilities were
 - Architectural Planning and Feature Verification
 - Timeline Management
 - Feature Implementation

- Artificial Intelligence Library** *(October 2015 – December 2015)*
- Library developed during the course of program course.
 - *Pathfinding* – library provides support for
 - defining a graph of nodes
 - provides a few pathfinding methods like A*, Dijkstra, DFS and BFS
 - *Steering* – based on Craig Reynolds' Steering behaviors
 - Library provides a *SteeringBehaviours* components, allowing users to add and manage individual behaviors like *Seek*, *Arrive* and *Wander*
 - *Perception*
 - Provides a perception component, allowing agent to maintain a

- collection of decaying records of nearby agents
 - Records are generated by filters
 - Library defines a filter interface to allow for the create of user-defined filters
- Finite State Machine
 - Library provides a FSM component for agents to use and manage states
 - Provides a State class definition to handle *entering*, *updating* and *exiting* of a given state

2D Game Project (C++)

(July 2015 – September 2015)

- A Pair Project that started as a school project
 - Goal is to make a 2D Roguelike using a light engine framework provided by an instructor
- Implemented Sprite Animation Back End
 - Uses Polymorphic Inheritance to drive different animation states and functionality
- Implemented Collision Detection and Handling
 - Uses inheritance to identify objects eligible for collision
 - Provide an interface to allow an object to define their own response behavior

Work History

Store Clerk

SaveOnFoods

December 2007 – Present

12130 Nordel Crossing, Surrey, BC

Worked with coworkers in a team environment to divide and conquer daily tasks and meet end user needs.

Education

Visual and Game Programming Diploma

Art Institute of Vancouver

Vancouver, BC

Expected Graduation date is March 2016

October 2014 – March 2016

Courses of Interest

- Artificial Intelligence
- Concurrency
- Unity3D

Software Systems Degree

Simon Fraser University

Vancouver, BC

Left Institution in April 2014

September 2009 – April 2014

Courses of Interest

- Networking
- Operating Systems

References

Available upon request