



Skills

</> Languages

C# C .NET ShaderCore HLSL Rust Java JavaScript
HTML CSS PHP Python

Software

Unity Unreal Engine 4 Greenfoot Git Flow Jenkins
Game Engines Version Control
Visual Studio VSC MySQL React ASP.NET Blazor
IDEs & Frameworks
Photoshop Cinema 4D Blender FileZilla Audacity OBS Resolve
Art Media
Premier Pro Sony Vegas Davinci Resolve 16
Editing

Professional
Advanced
Intermediate
Beginner

Experience



Professional Projects

Game Developer

Powercor

Feburary 2023 - Present



Powercor Australia - Victoria, Australia

- Game Developer for IOS training application 'Varsity'.
- Full Stack Web Developer for user results of Varsity.
- Immersive Technology Developer for VR training application.
- Designed, Implemented, and Maintained complex systems including;
- Reflection based MVVM data management, linked through data binding GUI.
- Local results cache for user data posting to AWS backend.

- VR & IOS object selection outlining with HLSL.
- 'Activity, step' entity component system for gameplay loop.
- Restructure and optimisation of web frontend for user results in Blazor.

ScriptableObject Editor

Indie

July 2022 - December 2022



Published Tool designed to centralize the management processes behind modifying ScriptableObjects.

- Tool created as a custom editor window that utilizes Unity's EditorGUI backend.
- Makes use of AppDomain and System.Type 'generics' to get and modify assemblies.
- Designed to simplify and centralize the creation and modification processes behind Scriptable Objects.
- Utilizes a serialized window to display and give modification access to a selected ScriptableObject's fields and properties.
- Allows for the deletion and renaming of the selected object within the serialized window.
- Scrollview accompanied by a case-insensitive search sidebar to display all Scriptable Objects.

- Multiple filters to mask displayed selectable Scriptable Objects.
- Assembly filter for masking the displayed objects to a specific assembly associated within the project.
- Folder filter to mask only objects contained within a specified directory.
- Type type filter to mask class derived objects.
- Custom creation window for creating new ScriptableObjects as well as new class types of ScriptableObjects.
- Tested and working for all versions of Unity past 2019 (Excluding versions recognised by Unity to cause issues).



University Projects

Summit - Lead Programmer

MQU

July 2022 - November 2022



Student project with 5 team members, 3 programmers. 3D third person rogue-like made in Unity. 410+ personal hours dedicated.

- Re-engineered existing codebase focusing on efficiency, modularity, and simplicity.
- Acted as senior developer to manage & aid development processes across the board (including design and art).
- Designed and implemented all backend systems related to gameplay and structure.
- Designed and implemented custom Boss State Machine.
- Modularized boss states for designer friendly implementation.
- Implemented modular animation event listeners to control states

- Implemented modularized scene management with asynchronous loading.
- Designed and assisted implementation of power-ups.
- Designed and implemented a custom interaction system utilizing listeners for modularity.
- Developed announcement and dialogue systems.
- Custom camera handler for panning, effects, and 3rd person perspective.
- Managed custom lighting and skybox handling.

CQU Statistics Project - Lead Programmer

MQU

Feburary 2022 - June 2022



Student project with 5 team members, 1 programmers. Gamification visual novel made in Unity.

- Apart of the PACE Internship program at Macquarie University, dedicated client was Central Queensland University.
- Designed, implemented, and mantained systems in accordance to requirements given by the client.
- Client task: Create a gamified quiz to track student's knowledge of statistics.
- Custom Dynamic Dialogue System with dialogue.
- Full intergration with Google Sheets API v4.
- Records and collects player completion data using google database.

- Completely automated visual novel setup without additional programming.
- Dialogue options used to create diverging pathways for player progress based on their performance.
- Custom commands and modifiers used to enhance dialogue with effects, sprite changes, and more.
- Framework creates game content based on .json level files.
- Full intergration with Json.NET framework using custom class & interface based serialization.



Personal Projects

Dark Light

July 2019 - Present

2D metroidvania inspired by Hollow Knight and the Soulsbourne Series. Paused development while at Univeristy.

- Custom player state machine.
- Custom velocity based movement for fast paced mobility and combat.
- Command based custom input system used to handle player movement. Allows for control over the player to be utilized in systems handling cutscenes and event triggers.
- Custom input system derived from Unity Events to allow for control configuration and keybinding storing.
- Modular interface based save system using Json.NET (Works with binary serialization).
- From scratch A* pathfinding for non-player entities.

Education

Bachelor of Game Design & Development

2020 - 2022

Macquarie University

Sydney, Australia

Diploma of Interactive & Digital Games

2019

Northern Sydney Institute TAFE

Sydney, Australia

High School Certificate (HSC)

2008 - 2018

Sydney, Australia