Aiden Nathan
Game Programmer & Designer

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Sydney, Australia

Portfolio: https://aiden.fyi/

Better Quality: Web Version

Skills

</> Languages

C# | C | ShaderCore | Java | JavaScript | React | HTML | CSS | PHP | Python

Software

Unity | Unreal Engine 4 | Greenfoot | GIT | Jenkins

— Game Engines — — Version Control —

Premier Pro | Sony Vegas | Davinci Resolve 16 | Photoshop | Cinema 4D | Blender

— Editing — — Art —

Visual Studio | VSC | FileZilla | MySQL | Audacity | OBS

— IDE & Misc —

Legend: Professional | Advanced | Intermediate | Beginner

Experience

👥 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 asychronous loading.
- Designed and assisted implementation of power-ups.
- Designed and implemented a custom interaction system utlizing listeners for modularity.
- Developed announcement and dialogue systems.
- Custom camera handler for panning, effects, and 3rd person perspective.
- Managed custom lighting and skybox handling.

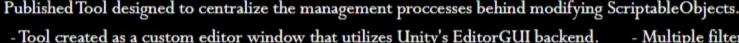### CQU Statistics Project - Lead Programmer — MQU — Feburary 2022 - June 2022
Student project with 5 team members, 1 programmers. Gamification visual novel made in Unity.

- 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

ScriptableObject Editor — July 2022 - December 2022
Published Tool designed to centralize the management proccesses 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).

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**