SCOTT EWING

GAME DESIGNER / PROGRAMMER

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SUMMARY

Dedicated Game Designer / Programmer with a strong background in C#, experienced in developing engaging mechanics and gameplay systems across multiple engines. Skilled at translating complex design concepts into seamless interactive experiences and collaborating with cross-functional teams to deliver high-quality games. Passionate about creating responsive, immersive gameplay and always striving to refine and enhance player experiences.

KEY ACHIEVEMENTS

- Game Bridge Game Design Excellence Award 2024 for RopeBot.
- Participated in Tranzfuser, a competition to support UK graduates to start new game development studios.
- 2023 Best Computer Games Development Game Award at University
- Awarded the Court Medals in recognition of achieving the best results first and second year of degree.

EDUCATION

Bachelor of Science: **Computer Games Development** 2019-2023
University of The West of Scotland**,**
- First Class Degree

Bachelor of Science: Biomedical Science 09/2015 - 04/2016
The University of Edinburgh

SKILLS

- **Programming**: C#, C++, GD Script, Java, JavaScript
- **Game Engines**: Unity, Unreal Engine, Godot, Phaser
- **3D Art Tools**: Maya, Blender Substance Painter
- **IDE's**: Rider, Visual Studio, Android Studio, PyCharm, WebStorm
- **Collaboration**: Agile methodologies, cross-functional team communication
- **Technical Proficiencies**: Debugging, clean code practices, Test Driven Development, Version Control (Git)

EXPERIENCE

RopeBot - C# 2022- Present

Game Design, Programming, UI Design, Game User Research

RopeBot is an upcoming third-person platformer with realistic rope mechanics and puzzle elements. The game gives the player unrivalled control over fully physically simulated ropes.

- Developed a character controller which allows the player control over rope creation, deletion, and length.
- Developed electric rope system with Generators, Repeaters, and Receivers to power doors, platforms, etc.
- Created a checkpoint system that saves and restores the state of the player, enemies, and interactable objects on death
- Designed levels to teach game mechanics and to challenge players with those mechanics.
- Developed a dynamic UI System which adapts to display the current mechanics available to the player.
- Physics-based obstacles using Unity joints (hinge, pivot, drawer, etc.)

Software Development Consultant 2024 – 2025
FDM - Glasgow

Worked in an Agile environment within a cross functional team, improving communication and presentation skills while effectively conveying technical concepts to different stakeholders. Gained a deeper understanding of software design by following SOLID principles, enhancing the ability to write clean, maintainable, and efficient code.

- Expanded experience beyond game development to building MVC applications with Spring and React
- Developed a penalty shootout game in Godot for a safer gambling initiative to assess players' appetite for risk.
- Contributed to an AI-powered CV matching tool using a Doc2Vec model, with a Python backend and Next.js frontend, designed to run locally.

Game Programmer 2023 – 2024
Pale Blue Ocean - Glasgow

Pale Blue Ocean is a group of game designers, artists, and engineers from The University of the West of Scotland who took part in Tranzfuser, a competition to support UK graduates to build successful game development studios. Our game Insubordinate is an isometric, office-based, twin-stick shooter where you work your way up the corporate ladder, fight by fight. This game was showcased at Insomnia 2023.

- Developed player locomotion.
- Developed Weapon / AI Systems.

Project Retro Museum - C# - Team of 6 2023

Programming (Gameplay, UI, Audio, Animations)

Educational game developed to teach players about retro game consoles through a museum-like setting and with a series of mini-games made in the style of games from various consoles.

- Developed a minigame in the style of the DOOM port for the SNES.
- Recreated the AI behaviour of several enemies from DOOM.
- Programmed using a component-based workflow allowing health, weapon, audio, and animation scripts to be used across the player, enemies, and other entities in the level.

Mind Robber - C# - Team of 3 2021-2022

Game Design, Programming, UI Design, Team Management

Single-player, stealth-based bank heist game where the player uses telekinetic powers to pass puzzles and obstacles.

- Created a checkpoint system to save the state of the player, enemies, and intractable objects allowing the game to reload each time the player is caught.
- Created a camera hacking system allowing the player to take control of a network of security cameras.

Car Tag - C# 2021

Game Design, Programming, UI Design, Documentation

An asymmetric local multiplayer racing game where one player evades the others.

- Developed a dynamic checkpoint system. Checkpoints are created while the evading car drives. Allowing the route to be different for every game.
- Implemented core gameplay loop. When a chase car catches an evading car, they swap roles. The round continues until the evader reaches a target distance.
- Created an ability system that simplifies the implementation of additional abilities.
- Implemented scalable code that supports beyond the current 4-player limit
- Explored the integration of online multiplayer, initially using Photon PUN 2 and later experimenting with Photon Fusion, though the feature was not ultimately implemented.

Scott's Box - C# - Unity 2021 – Present

Developed and maintained a versatile library, Scott's Box, encompassing a collection of utility scripts and systems for Unity projects. Continuously expanded and refined over time, the toolkit serves as a valuable resource for enhancing efficiency and functionality in game development.

- Experience in creating and maintaining game development tools and systems.
- Trigger System: Implemented an extendable system for creation of custom trigger behaviours
- Managed and integrated Scott's Box as a Git submodule, ensuring careful testing and validation of script changes to prevent potential issues across multiple Unity projects.
- Checkpoint Systems: Designed to save and reload object transforms, with the flexibility to incorporate additional features like door states.
- Physics Trajectory: Developed a to calculate and visualize the trajectory of projectiles.
- Dynamic Input Icons: Developed UI icons that adapt in real-time based on the player's controller type
- Physics-Based Character Controller
- Various utilities to help with UI fading / Ray casting

Doodle Course - JavaScript **-** Team of 2 2021

Game Design, Programming (Gameplay, UI, Audio), Team Management, Art Design, Audio Development

A 2D game where the player builds the level themselves to allow a ball to get from the start to the end of a level.

- This game was written in JavaScript and was created using the Phaser 3 Framework.
- Developed a method for taking existing 2D assets and giving them the appearance of having been "doodled" on paper.

The Lone Ember - C# **-** Team of 5 2020

Programming, Level Design, Art Asset Implementation, Animations Implementation, UI Implementation

A 2D platformer where each mechanic can only be used once.

- Worked with four people from around the world across multiple time zones.
- Implemented character controller and limited each movement.
- Implemented swinging vine (i.e., rope) mechanic. The Player could climb up and down vines.

Call of Duty - Custom Zombies Maps 2016-2018

Level Creation, Lighting, Programming

Created maps for the zombies' game mode within Call of Duty: World at War and Black Ops 3, using the available mod tools.

- The maps were remakes of levels from my favourite game DOOM.
- Published a total of five maps across the two Call of Duty games with over 30,000 downloads.

APPS

Recipe Adjustment App - Java - Android 2021

As an avid baker, I grew frustrated by having to manually modify recipes if I was short of one or more ingredients. I used this as an opportunity to learn how to develop an app using Android Studio and Java which would automatically recalculate the ingredient quantities required.