Slot Machine Art and Engineering in Unity

In this workshop, participants will build and configure a slot machine game in Unity. Activities will cover getting started in the Unity Editor, designing the background of the game, animating elements to add visual interest, configuring the UI elements of the game, building the slot game functionality, and finally, hot swapping game elements to reduce game development time.

By the end of the workshop, participants will have a hands-on understanding of how Unity can be used to create slot machine games, how to quickly and creatively reconfigure games, and how to decrease overall game development time.

Learning Objectives and Outcomes

Demonstrate key features of the Unity 2D tool set needed to creating slot machine games
- Introduce the Unity Hub
- Configure a Unity Project for 2D development
- Identify the different Editor windows and their purposes
- Use common hotkeys and shortcuts to navigate in the Editor

Configure basic scene elements to create the game background
- Use the Sprite Editor to slice Sprite Sheets for use in the Scene
- Configure Prefabs for use throughout the Scene
- Use Tilemap to build multi-layered Sprite based Scenes
- Adjust Sprite Z-positioning to create a background scrolling effect

Level: Beginner
Prerequisites: No prior experience required
Duration: 7-8 hours
Class size: 15 people
Trainer: Unity Certified Instructor
Implement multiple types of in-editor animations to add visual interest to a project
- Create sequenced sprite sheet animations
- Create keyframe animations
- Control multiple animation sequences with the Animator

Develop an interactive UI system to create intuitive user interactions
- Configure a Screen Space Overlay Canvas for UI components
- Configure Unity UI Buttons to trigger scripts
- Create Unity UI Text Components to display script data

Build the interactive Reel Set Array to create the slot game functionality
- Use Sprites to create Reel symbols
- Layout and configure the Reel Set components
- Apply logic scripts to enable game interactivity
- Re-size the reel
- Use a custom Shader to control Sprite visibility in the scene

Reconfigure the Reel Set Array using live hot swapping to decrease development time
- Hot swap symbols in the reel set
- Change the Reel Strip heights and line evaluators

Activities
- Introduction: Workshop overview and Learning Action Plan
- Activity 1 - Identify Unity Editor elements to efficiently navigate the Editor
- Activity 2 - Configure basic scene elements to create the game background
- Activity 3 - Implement multiple types of in-editor animations to add visual interest to the project
- Activity 4 - Develop an interactive UI system to create intuitive user interactions
- Activity 5 - Build the interactive Reel Set Array to create the slot game
- Activity 6 - Reconfigure the Reel Set Array using live hot swapping to decrease development time

What to Bring
- Each participant will need to bring a laptop (Windows or OSX), power supply (including any necessary international adapters), and mouse.
- Install Unity 2017.4 prior to the workshop.