

PICK ANY 3 GAME PROJECTS FOR YOUR PORTFOLIO



ARCHITECTURE

SAVE SYSTEM 1

Multiple Save Slots | Auto Save | Cloud Save

- Data Serialization
- File Management
- State Persistence
- Cross-Platform

INVENTORY 2

Item System | Equipment | Trading

- Data Architecture
- UI Architecture
- State Management
- Scriptable Objects

MICRO-SERVICES 3

User Authentication | Leaderboards | Inventory

- Cloud-Based Architecture
- Scalability
- Separation of Logic
- RESTful APIs

DIALOGUE SYSTEM 4

Branching Dialogue
Quest Integration
Character System

- Graph Architecture
- State Management
- Event Integration

SERIOUS PROJECTS FOR SERIOUS DEVS

SPECIALIZATION

AI

BEHAVIOR SYSTEM 9

- Advanced FSM
- Behavior Trees
- Utility AI

XR



AR FRAMEWORK 10

- World Tracking
- Object Recognition
- UI Placement

GOAP Strategy 11

Goal-Oriented Action Planning

Dynamic NPC Goals
(Gather, Build, Attack)

- Advanced AI Planning
- Blackboard Systems
- Behavior Trees

VR Escape Room 12

Physics Interactions
Puzzle Solving

- Hand-Tracking
- Teleport/Smooth Locomotion
- Haptics

ENGINE MASTERY

UNITY



DOTS Performance Demo 5

Thousands+ Units
MonoBehaviour vs. ECS

- Burst Compiler
- Job System
- Entities
- Data-Oriented Optimization

UNREAL



UNREAL C++ SYSTEMS 6

Custom Components
Gameplay Abilities
Network Features

- UE Architecture
- GAS Implementation
- Network Replication
- Performance

SHADER GRAPH SYSTEM 7

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BLUEPRINT FRAMEWORK 8

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MULTIPLAYER



MMO SYSTEMS 13

Zone | Player Instances | World State

- Server Architecture
- Database Design
- Load Balancing
- Cross-Server

Dedicated Server FPS 14

Fast-Paced, Authoritative Server, Latency Compensation

- Custom Netcode
- Photon/Netcode Integration
- Prediction & Reconciliation
- Networking & Physics

Online Co-Op Puzzle 15

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GAME GENRES SPECIFIC

Turn-Based Tactics 16



- Grid-Based Movement
- Cover System
- Skill Sets
- Permadeath

ACTION RPG: Combat System 17



- Combo System
- Skill Tree
- State Management
- Animation Rigging

SIMULATION: City Builder 18



- Grid System
- Resource Flow
- AI Citizens

SPORTS: Physics-Based 19

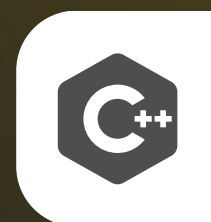





- Physics Simulation
- Team AI
- Match System
- Rules Engine

6 WEEKS

4 GAME PROJECTS

UNITY GAMES



Game Project	Mechanics	Focus Concept
<p>2D Maze</p>	<ul style="list-style-type: none"> • Simple Movement • Walls • Instant Kill Obstacles • Main Menu UI 	<ul style="list-style-type: none"> • No Physics Movement • Basic UI • Basic Sound • NO ANIMATIONS • Build: Web <p>EASY</p>
<p>2D Platformer</p> 	<ul style="list-style-type: none"> • Stylized Movement • Health & Combat System • Enemy AI • Collectables • Follow Camera • Multiple UI Screens 	<ul style="list-style-type: none"> • Physics Movement • Tilemaps • Scriptable Objects • Mobile Build • Old Input System • Scalable UI <p>EASY</p>
<p>3D Character</p> 	<ul style="list-style-type: none"> • Realistic Movement • Complex Animations • Multiple Cameras • Lighting • NO GAME LOOP 	<ul style="list-style-type: none"> • Animations <ul style="list-style-type: none"> ◦ Blend Tree ◦ Sub State Machine ◦ Animation Events • URP • New Input System <p>CHALLENGE</p>
<p>Open World</p> 	<ul style="list-style-type: none"> • Large Environment • Basic Environmental Interactions • Detailed Lighting • 3D Character 	<ul style="list-style-type: none"> • Rendering <ul style="list-style-type: none"> ◦ LOD & Batching ◦ Post Processing • Level Streaming • Unity's Profiler • Builds <ul style="list-style-type: none"> ◦ Easy: PC ◦ Challenging: Mobile <p>HARD</p>




8 WEEKS

8 GAME PROJECTS



ADVANCED GAME DEV



Game Project	Mechanics	Focus Concept
Tower Defence 	<ul style="list-style-type: none">• Enemy waves with different types• Varied Tower Types• Resources & Upgrade System	<ul style="list-style-type: none">• Singleton• Service Locator• Dependency Injection
Battle Tank	<ul style="list-style-type: none">• Varied Tanks with<ul style="list-style-type: none">◦ Different stats and skins	<ul style="list-style-type: none">• MVC
Horror Survival 	<ul style="list-style-type: none">• Environmental Scare Event Systems• Resource Collection triggers events	<ul style="list-style-type: none">• Observer
Inventory System	<ul style="list-style-type: none">• Shop and Currency• Inventory Items: Types, Rarity, Price, etc	<ul style="list-style-type: none">• All Learnt Patterns
Space Shooter	<ul style="list-style-type: none">• Huge Enemy Waves• High Speed Guns and Weapons	<ul style="list-style-type: none">• Object Pooling
Turn Based Combat	<ul style="list-style-type: none">• Diverse attack moves & abilities• Turn order & combat queue	<ul style="list-style-type: none">• Command Pattern
HITMAN Stealth Killer	<ul style="list-style-type: none">• Stay Hidden Kill enemies in Shadows• Enemy AI States: Patrolling, Alert, Searching, Chasing, Attacking, Dead	<ul style="list-style-type: none">• State Machine
Chest System 	<ul style="list-style-type: none">• Different chest rarities• Timed unlock: Gems for Instant Unlock• 4 Slots with Random Chest Generation	<ul style="list-style-type: none">• Apply all Learnings• Focus on Architecture