KARL LEWIS
TECHNICAL SYSTEMS DESIGNER

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Core Skills

- Developed over a dozen projects over 4 years in **Unreal Engine 4** and **Unity** for **PC**, **VR**, and **mobile** in both solo and teams
- Designs and scripts user-centric **systems, content,** and **tools** from **multidisciplinary angles**: engineering, audio, FX, and art
- Highly proficient in **Unreal Blueprints**, **C++, and C#,** with deep understandings of **3D math** and **object-oriented design**
- Excels in **documentation**, **presentation**, and **interdisciplinary communication** within an **agile scrum** setting
- Strong **leadership, teamwork, & organizational** experience, having achieved **Eagle Scout** in the Boy Scouts of America

Expertise

• Systems Design & Engineering • FPS Design • Character Controls • Procedural Animation • VR • Audio • Agile Scrum

Game Projects

Cash Force   *Unreal Engine 4*   Team Project
Virtual Reality arcade shooter inspired by 1970's crime films
Design • VR interaction, weapons, gunplay, combat, animation, player feedback, level scripting, content, economy, balance, tools
Programming/Implementation • VR Interaction, gunplay, animation, gameplay, audio, tools, level scripting, economy

Shotgun Shootout   *Unreal Engine 4*   Solo Project
Immersive shotgun-based FPS with manual weapon controls
Design • Shooting, pumping, reloading, aiming, character controls, animation, VFX, projectiles
Programming/Implementation • Gameplay, feedback, procedural animation, audio, projectile physics, architecture
Art • Shotgun model, true first person character, muzzle flash particles, bullet impact particles

Simple Sandwich   *Unity 3D*   Team Project
Compete with friends to make tasty sandwiches
Design • Movement, scoring, PvP, UI/UX, player feedback, VFX
Programming/Implementation • UI/UX, player feedback, audio, VFX, character animation

Bolter, Bolter, Bolter!   *Unity 3D*   Solo Project
Immersive flight simulation with real physics and carrier landings
Design • Flight simulation model, controls, user interface, carrier landing simulation, level
Programming/Implementation • Gameplay, feedback, physics, UI/UX, audio
Art • Plane model, carrier model, UI elements, Unity terrain

Snowball Showdown   *Unity 3D*   Team Project
Fast paced competitive snowball fighting in Virtual Reality
Design • Character controls, combat, throwing, scooping, items, PvP, feedback
Programming/Implementation • Physics, gameplay, feedback, haptics, audio, UI/UX

Software Skills

Game Engines
Unreal Engine 4 • Unity 3D

Programming Languages
C++ • Unreal Blueprint • C# • HTML • GLSL • RakNet

Other
Vector math • Blender • Photoshop • Illustrator • Excel • Wwise

Work Experience

Emergent Media Center – Interactive UX/UI Designer
Burlington, VT – Sep 2019 - Present
- Design and prototype gameplay, UI, and UX systems
- Create and maintain design documentation
- Assist with implementing systems, mechanics, and assets for a mobile game

VCB LLC – Technical Game Designer
Burlington, VT – May 2019 – Sep 2019
- Design and program VR game systems, UX, and audio for *Snowball Showdown*
- Attended Oculus Connect 6 to promote the game

Fellow Humans LLC – Game Designer
Burlington, VT – Feb 2019 – Aug 2019
- Design and implement game systems, user interface, and audio for *Simple Sandwich*

Education

Champlain College - Burlington, VT
Game Design 2016 - 2020
Bachelor of Science in **Game Design** with **minor in Game Programming**
- Dean's List every semester (GPA 3.75)
- Junior Year Production 2 game taken to PAX East

Champlain College Study Abroad - Montreal, QC
Fall 2018
- Studied under game industry professionals