

KARL LEWIS

GAME DEVELOPER | | SOFTWARE ENGINEER

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(570)-954-0126

Core Skills & Experiences

- Developed over a dozen projects over 6 years in **Unity** and **Unreal Engine 4** for **PC**, **VR**, and **mobile** in both solo and team settings.
- Develops software and **game systems, content, simulations, & features** from **multidisciplinary angles**: art, engineering, audio, and FX.
- Highly skilled in **C#, C++, and Unreal Blueprint Scripting** with deep understandings of **3D math** and **object-oriented design**.
- Proficient with **real-time debugging tools, unit testing procedures**, and advanced language features like **LINQ**.
- Outstanding verbal & **written communication skills** within fast-paced **agile development** and software demonstration environments.
- Champion of **iteration & innovation**; able to **critically analyze systems** to provide clear & honest feedback for the sake of the product.
- Strong **leadership, collaborative, & organizational** experience, having achieved **Eagle Scout** in the Boy Scouts of America.

Expertise

• Game & Simulation Development • Game Design • Flight & Aviation • UI/UX Design & Engineering • Rapid Prototyping • VR • Agile Scrum

Projects

BORG Space *Unity 3D – Shipped Title* *Boecore Inc.*
Satellite operations training game used by US Space Force Cadets
Design • Satellite maneuver system, coordinate frames, tutorial, general UI/UX, authoring tools, orbits, engagement zones, objectives.
Engineering • Maneuver controls, maneuver framework, orbits, UI/UX scripting, tutorial, objectives, authoring tools, various game features.

Cash Force *Unreal Engine 4* *Fellow Humans LLC*
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.
Engineering • VR interaction, gunplay, animation, gameplay, AI, UI, audio, tools, level scripting, economy.

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

Project Borealis *Unreal Engine 4* *Project Borealis Team*
Half-Life fan game based on original plot of Half Life 2: Episode 3
Animation Programming • Zombie character (root motion, attacking, IK, blending, etc), procedural weapon animations, player character hand IK.

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

Skills

Programming Languages & Game Engines

C# • C++ • Unreal Blueprint • JSON • Python • Unity • Unreal Engine 4

Certifications & Clearances

[Certified Scrum Master](#) – October 2021 – October 2023

Private Pilot Certificate – March 11th 2022

Secret Clearance – December 2020 – ACTIVE

Other Technical Skills

Jira • Confluence • 3D math • Blender • Photoshop • Microsoft Office

Work Experience

Boecore Inc. - Game Developer/Software Engineer 1
Colorado Springs, CO – June 2020 – Present

- Developing *BORG Space*, a satellite operations training game using C# & Unity in an Agile Scrum team. Successfully deployed *BORG Space* to the Space Force National Space Defense Center and United States Air Force Academy.

Fellow Humans LLC – Lead Game Designer/Programmer
Burlington, VT – Feb 2019 – May 2020

- Designed and programmed game systems, features, content, combat, feedback, and more on two games.

Emergent Media Center - Interactive UX/UI Designer
Burlington, VT – Sep 2019 – May 2020

- Designed UI/UX systems for an AR mobile game in Unity.

VCB LLC - Technical Game Designer/Programmer
Burlington, VT – May 2019 – Sep 2019

- Designer and programmer on a VR multiplayer game.

Education

Champlain College - Burlington, VT
Game Design 2016 - 2020

- Game Programming minor.
- Created several full games in agile teams & solo.
- Attended various events to demo games.
- Studied under AAA game industry professionals in Montreal.