Albany, NY
LinkedIn

Arnold Lopez

(703) 927 3711
arnold.r.lopez@hotmail.com
lopezdeveloper.net

Software Developer specializing in gameplay systems with additional experience in tools development, real-time rendering optimization, and VR training simulations. Skilled at building robust interactive features and automated workflows to boost performance, simplify development, and improve both player and developer experiences

Primary Skills

- Expertise in programming gameplay systems, physics simulations, rendering pipelines, networking backends, and XR interactions
- Experienced in developing standalone tool applications and editor utilities that streamline both art and engineering workflows
- Strong collaboration skills, including cross-team technical communication, training, and contributing to technical design efforts

Technologies and Languages

- **Languages**: C#, C++, C, Python, Lua
- **Engines & Frameworks**: Unity, XR Interaction Toolkit, Mirror Networking, OpenSceneGraph
- **Build & Tooling**: Python (Tkinter), Qt, CMake, CPack, Git
- **Graphics & Profiling**: Shader development (HLSL/GLSL), NVIDIA Nsight Graphics, Unity Test Framework

Work Experience

Interactive Simulation Programmer   **Engineering & Computer Simulations**   **June 2022 – August 2025**
Reactor Servicing team   Ballston Spa, NY

- Designed, implemented, and tested core features for three major virtual training simulation products
- Built and deployed a standalone tool that automates STIG specifications for cybersecurity compliance
- Maintained and updated Unity packages and shared systems used across multiple downstream projects

Graphics Software Engineer   **LEIDOS**   **May 2018 – July 2021**
Periscope Simulator team   Rockville, MD

- Built a compute shader-driven particle system and a standalone node-based particle editor (Qt, CMake, CPack)
- Resolved rendering bugs in a custom graphics pipeline backend and improved stability and visual fidelity
- Integrated SteamVR and OpenVR headset tracking into networked systems for synchronized VR interactions

iOS Application Developer   **MOBILE CONSULTING SOLUTIONS**   **June 2017 – Jan 2018**
                                                     Atlanta, GA

- Implemented UI features for real-world aviation training simulations
- Updated airport and runway datasets using SQLite with Jeppesen source data
- Contributed to a 7-person agile team building a commercial aviation application for Gulfstream pilots

Education

B.Sc. Computer Game Development   **DEPAUL UNIVERSITY**   **2010 – 2015**
                                                     Chicago, IL

- Led design for two team-based game projects
- implemented dungeon generator and gameplay systems for a capstone project