Albany, NY
Linkedin

Arnold Lopez

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

Software Developer with experience in designing, implementing, and optimizing real-time rendering systems, procedural content, and virtual training simulations. Developed tools that streamline workflows, automate testing, and deliver high-quality graphics solutions for interactive simulations and games

Primary Skills

- Programming expertise across physics systems, rendering pipelines, networking backends, and XR interactions
- Delivering standalone applications and tools to streamline art and developer workflows.
- Experience in collaborative technical environments, including team training and tool demonstration.

Technologies and Languages

- Languages: C++, C#, Swift, Python, OpenGL, JSON
- Technologies: Qt, CMake, CPack, NVIDIA NSight Graphics, Unity, Git, SteamVR, ImGUI
- Other: Shader programming (HLSL/GLSL), Automated Testing (Unity Test Framework), Linux CLI

Work Experience

Interactive Simulation Programmer   Engineering & Computer Simulations   June 2022 – August 2025
Reactor Servicing team   Ballston Spa, NY
- Designed, Implemented, and tested features for three major virtual training products.
- Built and deployed a stand-alone tool automating STIG processing for cybersecurity compliance
- Maintained and updated Unity packages used across downstream projects.

Graphics Software Engineer   Leidos   May 2018 – July 2021
Periscope Simulator team   Rockville, Maryland
- Created a GL Compute Shader-based particle system and a standalone node-based particle editor in Qt.
- Resolved rendering bugs in a custom graphics pipeline backend and enhanced visual fidelity.
- Integrated SteamVR and OpenVR headset tracking over networked systems.

iOS Application Developer   Mobile Consulting Solutions   June 2017 – Jan 2018
                                                Atlanta, GA
- Implemented UI features for real-world aviation training simulations.
- Updated airport/runway data via SQLite with Jeppesen sources.
- Contributed to a 7-person agile team building commercial aviation tools for Gulfstream.

Education

- **B.Sc. Computer Game Development,** Depaul University, Chicago IL.   **2010 – 2015**
  Led design for two team-based game projects; implemented dungeon generator for capstone.