

Matthew Nelson

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SENIOR GAMEPLAY SOFTWARE ENGINEER

Versatile and results-driven engineer with a proven history in the video game and simulation industries. Expert in Unreal Engine, Unity, C++, and C#, with deep experience in AR/VR. Recognized for collaborative leadership, problem-solving, and a drive for continuous learning and innovation across a wide range of platforms and technologies.

PROFESSIONAL EXPERIENCE

Warner Bros. Games – Gameplay Software Engineer, Lead Engineer – Combat San Diego, CA · Feb 2023 – Apr 2025

- Led development of a scalable, server-authoritative combat system in UE5, significantly enhancing multiplayer gameplay and reliability.
- Collaborated cross-functionally to build robust combat features and developer testing tools, including AI-driven gameplay bots.
- Created a dynamic feature flag system with a web dashboard, empowering engineers to isolate bugs and reduce integration risk.
- Contributed to a project by implementing core gameplay systems within a high-performing engineering team.

Esri – Senior Software Engineer

Redlands, CA · Jun 2018 – Feb 2023

- Developed and maintained the ArcGIS Maps SDK for Unity and Unreal Engine, allowing real-time integration of global 3D GIS data into game engines.
- Designed an interop system connecting the core C++ library to Unity and Unreal platforms, optimizing performance and modularity.
- Built automated test suites for PR validation and daily builds; supported deployment across mobile, desktop, XR headsets, and an XR stage.
- Created interactive conference demos, including a spatial XR experience: <https://www.youtube.com/watch?v=XfPGeLaAQyQ>
- Spearheaded open-source sample repos to highlight SDK usage and best practices.

- Presented at international developer conferences and maintained a high public profile for developer engagement:
https://mediaspace.esri.com/playlist/dedicated/250241443/1_jzw4qgwy/1_8t26zglr
- Won three consecutive company-wide hackathons with novel AR/VR prototypes featured on LinkedIn.

Internships · Sep 2014 – Aug 2017

- **Dell** – Full-stack developer for an internal enterprise sales platform.
- **Sentry Insurance** – Web developer for a policy aggregation tool for insurance agents.
- **UW Madison Living Environments Lab** – Research assistant exploring 3D time-varying point cloud visualizations in VR.

EDUCATION

University of Wisconsin–Madison

B.S. Computer Engineering and Computer Science · 2014 – 2018

GPA: 3.8 · College of Engineering Dean's List

TECHNICAL SKILLS

- **Languages & Engines:** C++, C#, C, Unity, Unreal Engine, Java, Lua, Swift, Kotlin, JavaScript, Python
- **Tools & Platforms:** Visual Studio, Git, Jenkins, XR (VR/AR), Simulation, Embedded Systems
- **Specialties:** Gameplay Systems, Multiplayer Architecture, GIS Integration, Spatial Computing, AI, Test Automation, Math & Physics