JOSHUA D. NGUYEN

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SKILLS & PROJECT

Skills: Unreal Engine 4/5, Unity3D, C++, C#, HTML5, JavaScript, Python, Django, TensorFlow, .NET, ASP.NET Agile, Docker, Plastic SCM, SourceTree, Perforce, Jira, Azure DevOps, Amazon Web Service, Visual Studio, Git, Agile

Unreal/Unity3d Projects Cyberwar (Unreal) Infovisionverse (Unity3d) Infovisionverse (Unity3d)

Two Worlds(Unreal)-Platformer

EDUCATION

CG Spectrum (Link)   2025

BS in Game Development

University of Houston Victoria (Katy)**,** Victoria, TX   2019
Bachelor of Computer Science

PROFESSIONAL EXPERIENCE

Meta/Facebook   Sept 2025 – Present
Gameplay Software Engineer II
- Developed innovative NPC tools to enhance diverse behaviors in Horizon Worlds, improving user engagement.
- Contributed and distributed codebase for Horizon Engine. *
- Created complex code in TypeScript, C#, and C++ to demonstrate NPC functionalities for content creators.
- Create both simple and complex examples that can be used both for creator samples and for AI training.
- Contributed to the dynamic dialogue system, enabling complex branching logic and random variations in C++.
- Refactored component pooling for improved robustness while maintaining performance efficiency thus increasing code coverage to 75%
- Collaborated with cross-functional teams to establish cohesive 3Cs (Camera, Character, and Control), aligning engineering, design, and art vision.

HP Inc   May 2024 – April 2025
Gaming Software AI Engineer
- Optimized the path algorithm for better NavMesh for Avatar via LLM for Unreal Engine 5 (C++ 17)/Unity3D (C#)
- Establish prototypes and iterate gameplay ideas and features to refine the user experience.
- Conduct end-to-end product reviews and evaluations to ensure a high-quality Gaming Experience from a gamer's perspective.
- Benchmark AAA games like Cyberpunk 2077, Baldur's Gate 3, and Forza Motorsports by using automation tools.
- Optimize game demo via Unity by using GPU profiling techniques addressing performance metrics for each game and facilitating any additional technical debt.
- Leveraged **RenderDoc** to inspect frame-by-frame rendering issues, validate HLSL shader outputs, and ensure correct rendering pipeline behavior in complex visualization scenarios.

Janus Research Group   Sept 2023 – May 2024
Game Content Developer & Technical Level Designer (Mid-Level) (Unity3D and Unreal Engine 5)
- Utilized military developed projects in HTML5, JavaScript, Linux, Python, C++ and Unreal/C# and Unity3d.
- Implementing AI algorithms and systems within Unity and Unreal Engine environments to create immersive gaming experiences, showcased by developing AI-driven NPCs for military training simulations.
- Developed AR/VR training simulations in Unreal Engine for military applications, leveraging **DirectX** for optimized rendering and performance.
- Analyzed gameplay logs and crash reports to identify deeper system-level issues across rendering and interaction layers.
- Collaborated with cross-disciplined team members in an agile/scrum environment.

- Iterate on features and implementations for usability and reunite optimization like object pooling, networking, and pipelines.
- Created Object Pooling and Screenshot plugin tools for users to take in-game pictures in real-time.
- Created and maintained design and technical documentation throughout the production cycle.
- Developed animation via state machine for artists to implement within their scene for imports via FBX files.

Combat Waffle Studios   April 2023 – Sept 2023
Full Stack Engineer
- Worked with artists, programmers, and other designers to complete Steam web API for multiplayer servers and online subsystem on AWS/Azure via backend deployment for the game made in Unreal Engine.
- Analyzed, designed, and developed assets and game engine scripts for a 3D immersive VR PVP survival interactive simulation.
- Established a backend
- Published and shipped Ghosts of Tabor in the Oculus Quest 2 store and Steam utilizing the latest .NET/C# technologies and Azure PlayFab cloud-based tech.

Infovision   May 2022 – April 2023
AR/VR Engineer (Mid-Level-Contract)
- Developed Augmented Reality/Virtual Reality applications with various clients (Verizon, AT&T, and T Mobile) in Unity3D/Unreal Engine 4 and packaged them in Oculus/Meta Quest 2.
- Developed AR/VR training simulations in Unreal Engine for military applications, leveraging DirectX for optimized rendering and performance.
- Investigated performance issues by profiling large FBX imports and animation runtimes, collaborating with artists to reduce bloat and optimize asset pipelines.
- Worked on Unity's Vivox, Nvidia Omniverse and Matchmaker to deliver VR experiences for Verizon customers and employees to deliver seamless interactive experiences.
- Apply Unity's NavMesh navigation system and Unreal Engine's Navigation Mesh to create dynamic and responsive AI pathfinding solutions.
- Created Object Pooling and Screenshot plugin tools for users to take in-game pictures in real-time.
- Used Unity3d extension/plugins such as Photon Fusion, XR rig, and WebGL to provide multiplayer and web experience with users' interaction in a gamified metaverse.
- Used 3D Math, .NET, C#, XAML, Python, and C++ to trace and calculate distance-grabbing objects using Dot Product/Cross vectors.

Mercer Project and Drastic Studio   December 2021 – April 2022
Unreal Engine 4 Engineer and Unity3D (Contract)
- Debugged and optimized network systems for optimal latency and bandwidth utilization.
- Build Network and multiplayer gameplay systems using blueprints and C++ with Unreal Engine (4.26.02) and Unity3D with C#.
- Evaluated existing code to improve the stability of the game.
- Implemented multi-player replication within the VR space with the Oculus Quest 2 platform.

Onessus Blockchain Systems   June 2021 – November 2021
Unreal Engine 4 Engineer (Contract)

- Planned and implemented game functionality for the pre-alpha phase of the game for HodlGod.
- Implemented DeFi technology and Blockchain within in-game currency, players' abilities using the Gameplay Ability System via ARPG with blueprints, and multi-player replication via networking.
- Design, build, and maintain efficient, reusable, and reliable code in C++ with UE4 (4.26 version)/UE5 engine. Game

Software Decisions Inc   April 2021 – November 2021
Jr. Software Developer
- Utilized daily SQL query in MS SQL Server for RPA Automation and built applications in C# to automate financial and healthcare data collection, etc.
- Used Selenium data-driven framework (Python) to utilize Coypu(.NET tool) for web scraping technology.
- Developed various documentation and writing stored procedures from other dev's work throughout the software development life cycle (SDLC).

Cornerstone Home Lending   Feb 2020 – April 2021
DevOps Support Analyst/Jr. Software Developer
- Provided support and assistance for key Tools and services used by software developers, testers, and operations teams to drive cross-team efficiencies and incident escalation queues.
- Established SQL query in Microsoft SQL server and used C#/C++ to update, delete, and sync records from support tickets and mobile applications
- Developed and managed CI/CD pipelines in Microsoft's Azure DevOps to efficiently deliver maintainability within Dev/Test/Production environments.