

# Amirtheshwaran "Amirthesh" Navaneethakrishnan

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## EDUCATION

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| <b>University of North Carolina at Charlotte</b><br>Master of Science in Computer Science, GPA 3.5/4.0<br><b>Relevant Coursework:</b> Game Development and Design sequence (Intro, Advanced, and Studio) | Charlotte, NC<br>Expected May 2027   |
| <b>SRM Institute of Science and Technology</b><br>Bachelor of Technology, Computer Science and Engineering (AI and ML)                                                                                   | Kattankulathur, India<br>2021 - 2025 |

## PROJECTS

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| <b>Service, First-Person Horror Game</b><br><i>Unity 6, C#, URP, HLSL, NavMesh</i>   <a href="https://github.com/Amirtheshwaran/service">github.com/Amirtheshwaran/service</a> <ul style="list-style-type: none"><li>Solo developer of a first-person horror game in Unity 6 and URP with walking and driving traversal, sprint, crouch, and surface-aware footsteps, spanning 5 explorable properties, 3 playable shifts, and a Windows build.</li><li>Wrote the creature AI as a 6-state pursuit state machine on NavMesh agents plus a look-away encounter that punishes player movement, tied to the car's ignition so escapes depend on getting the engine running.</li><li>Wrote 34 Unity Editor scripts for scene setup, asset import, and layout checks, plus a command-line smoke test mode that plays the real game loop, captures screenshots, and builds the Windows player.</li></ul> | Sep 2026 - Present  |
| <b>Untitled Ski Game, 3D Team Project</b><br><i>Unity, C#, Cinemachine, New Input System</i>   <a href="https://github.com/tylerJordan223/UntitledSkiGame">github.com/tylerJordan223/UntitledSkiGame</a> <ul style="list-style-type: none"><li>Built the scoring and trick systems on a 3-person team: speed-scaled points, a combo multiplier up to 10x that decays at low speed and breaks on collisions, and ramp-based trick detection with airborne inputs.</li><li>Added the main and pause menus, a ski lift teleport with a fade transition, and a debug HUD for air state and live input, then traced trick landings that failed only in builds to a script execution order race.</li></ul>                                                                                                                                                                                               | Jan 2026 - May 2026 |
| <b>Silk Lounge, 2D Platformer</b><br><i>GameMaker, GML, GLSL</i>   <a href="https://collectorsincorporated.itch.io/silk-lounge">collectorsincorporated.itch.io/silk-lounge</a> <ul style="list-style-type: none"><li>Led a team of 4 as programmer and director on a 1930s speakeasy platformer published on itch.io, building a 3-state player controller (run, web swing, wall stick), 4 enemy types, and a boss fight.</li><li>Added rebindable controls and selectable color filter shaders with settings saved to JSON, a persistent top-10 high score table with name entry, and debug commands (skip room, restart, add coins) for faster playtesting.</li></ul>                                                                                                                                                                                                                            | Aug 2025 - Dec 2025 |
| <b>NERV Tracker, Real-Time 3D Orbit Visualizer</b><br><i>TypeScript, Three.js, WebGL, GLSL, Vite</i>   <a href="https://github.com/Amirtheshwaran/nerv-tracker">github.com/Amirtheshwaran/nerv-tracker</a> <ul style="list-style-type: none"><li>Rendered 14,800+ live satellites and close-approach asteroids in real time, propagating orbits with SGP4 in a Web Worker and returning positions as transferable Float32Array buffers to keep the main thread smooth.</li><li>Wrote custom GLSL shaders for distance-scaled point sprites, banded planet surfaces, and planetary rings, plus a click-to-track camera with frame-rate independent damping and time warp controls.</li></ul>                                                                                                                                                                                                        | Jul 2026 - Sep 2026 |

## EXPERIENCE

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| <b>Drata IT Solutions</b><br><b>Cloud Infrastructure Intern</b> <ul style="list-style-type: none"><li>Built the build, test, and deploy pipeline that took deploys from 25 minutes to 10, and instrumented every service with centralized logging, monitoring, and audit trails.</li><li>Deployed 8 containerized services on GKE, Cloud Run, and Cloud SQL, cutting image size 35%, and provisioned 3 environments in 2,000+ lines of Terraform, replacing a 2-day manual process with a 30-minute apply.</li></ul> | Remote   Jul 2024 - Aug 2026<br>Jun 2026 - Aug 2026 |
| <b>Software Engineer Intern, Backend</b> <ul style="list-style-type: none"><li>Owned 8 Python REST endpoints end to end, from schema design through 3 third-party integrations, testing, and production deployment, defining API contracts jointly with 4 frontend engineers.</li><li>Cut average SQL query time 40%, refactored 6 backend modules into shared components, and reviewed 20+ pull requests.</li></ul>                                                                                                 | Jul 2024 - Nov 2024                                 |
| <b>University of North Carolina at Charlotte</b><br><b>Teaching Assistant, Frontend Web Development (ITIS 3135)</b> <ul style="list-style-type: none"><li>Grade labs and hold office hours for 118 students writing HTML, CSS, and JavaScript, debugging their code with them.</li></ul>                                                                                                                                                                                                                             | Charlotte, NC<br>Aug 2026 - Present                 |

## TECHNICAL SKILLS

**Languages:** C++, C#, Java, Python, TypeScript, JavaScript, GML, GLSL, HLSL, SQL  
**Engines and Graphics:** Unity 6 (URP, NavMesh, Editor scripting), Unreal Engine (UE4, UE5), GameMaker, Three.js, WebGL  
**Gameplay:** Player controllers, enemy AI and pathfinding, state machines, camera systems, UI and menus, save systems  
**Tools and Infrastructure:** Git, GitHub, Docker, Kubernetes, Terraform, CI/CD, GCP (GKE, Cloud Run, Cloud SQL), AWS