

Jack Burch

Tampa Bay, FL | 727-743-1278 | contact@jackburch.dev | jackburch.dev

SUMMARY

Unreal Engine C++ programmer with 6+ years of professional software development. Developed replicated gameplay systems and client features for a multiplayer UE5 title that shipped to paying players in November 2025. Experience includes performance profiling and C++ editor tooling, with additional development experience in C#, ASP.NET and SQL.

PROFESSIONAL EXPERIENCE

Unreal Engine Developer – Astarte Industries, Phoenix, AZ (remote) *August 2022 – October 2026*

- Integrated Unreal-side playtester bug reporting with the backend through the online subsystem.
- Developed C++ player movement using orthogonal state machines for stance, sprint, lean and vault, with stamina and movement penalties. Resolved replication issues.
- Architected a replicated, server-authoritative lighting and weather system that artists can extend without code.
- Implemented a Common UI system, including the server-browser interface.
- Reworked input and settings with chorded keybinds, rebinding and persistent settings.
- Refactored player initialization to resolve race conditions and improve reliability.
- Integrated an inventory system and developed role-based functionality around it to drive core gameplay.
- Built a GAS-based health and medical system with revive and respawn.
- Added a team deathmatch mode with scoring, a kill feed and spectating.
- Profiled performance using Unreal Insights and reduced CPU and GPU frame times.
- Configured per-tier scalability settings, with audit scripts and a team change ledger.
- Built procedural world tools using PCG.
- Developed a C++ Unreal Editor plugin for the level design team with modules for performance metrics, actor search and property editing, console variable controls and level-design utilities.
- Maintained a project stream in Perforce, including engine upgrades.
- Mentored teammates, wrote system documentation and set up the team's issue tracker.

Spider Team Programmer – Geographic Solutions, Palm Harbor, FL *January 2020 – September 2022*

- Developed and maintained automated web-data collection applications in a visual programming environment.
- Improved collection efficiency and reliability, expanded data coverage, and resolved data-quality issues.

Programming Tutor – St. Petersburg College Learning Center, Clearwater, FL *March 2017 – December 2019*

- Tutored students individually and in groups, teaching programming fundamentals, problem decomposition and debugging.

ENGINE CONTRIBUTION AND PERSONAL PROJECTS

- Submitted a PCG fix to Unreal Engine as a pull request on Epic's GitHub (@Gat0rRex).
- Set up and maintain a Linux homelab with Debian VMs and containers, segmented VLANs, firewall rules, DNS and service monitoring. Run a dedicated game server as a systemd service.
- Maintain a source-built Unreal Engine and a self-hosted Perforce Helix Core server for personal projects, with stream depots.

SKILLS

Unreal Engine 5: C++, Blueprint, replication, Gameplay Ability System, Common UI, PCG, Unreal Insights

Languages and frameworks: C++, C#, HLSL, Python, JavaScript, Java, Rust, ASP.NET, SQL.

Networking and Linux: TCP/IP and UDP fundamentals, DNS, VLANs, firewall rules, Debian, systemd, Proxmox

Tools: Perforce Helix Core, Unreal Game Sync, Git, TFS, Rider, PyCharm, IDLE, Visual Studio, DataGrip, YouTrack

EDUCATION AND CERTIFICATIONS

Associate in Science in Computer Programming and Analysis, St. Petersburg College, Clearwater, FL – December 2023

Associate in Science in Cybersecurity, St. Petersburg College – in progress

Computer Programming Specialist Certificate, St. Petersburg College – 2020

Computer Programming Certificate, St. Petersburg College – 2019