Daniil Perederii

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Website: https://daniilp367.github.io/PortfolioPage/ | Itch.io: https://rinzlerside.itch.io/ | Galaxy VR (SideQuest): https://sidequestvr.com/app/42374/galaxy-vr4

SUMMARY

Gameplay-focused programmer with 4+ years of C (C99) experience and hands-on Unreal Engine 5 development (C++ and Blueprints). Build complete gameplay systems and technical tools with an emphasis on deterministic, low-level correctness, debugging, and iteration speed. Published a VR prototype on SideQuest (Quest 2). Currently finishing an AAS in Game Design and Simulation for Programmers (May 2026) and seeking Gameplay Programmer / UE5 Developer opportunities across the U.S. (OPT eligible).

CORE SKILLS

- Unreal Engine 5: gameplay programming (C++/Blueprint), input & camera, VFX/Post Process, level scripting; comfortable reading engine source and extending engine systems; performance/workflow profiling.
- Multiplayer foundation: replication basics and UE5 Network Prediction concepts (input buffering, prediction/reconciliation) applied in prototypes and tested with simulated latency.
- C (C99): low-level programming, memory management, CLI tooling, deterministic pipelines; deep familiarity with the C standard library (18+ C99 standard headers). SQLite integration.
- Gameplay math & debugging: vector math, traces, surface normals, tuning movement/aim/controls with visual debug.
- AI & tools: RAG-style retrieval, rule-based planners, sandboxed execution loops; basic behavior tree concepts.
- Content pipeline: Maya/Blender (modeling/editing; UVs in progress), basic texture workflow (normal/metal/roughness), Photoshop; gameplay video editing (VEGAS).
- Web basics: can adapt and deploy HTML/CSS templates and static sites (GitHub Pages).

FEATURED PROJECTS

Project S - Deterministic Task Execution & Self-Learning System

System Architect & Lead Developer | C (C99), SQLite, RAG / Vector Search, Sandboxed Execution | Private (NDA-friendly demo available)

- Designed a deterministic CLI that converts natural-language tasks into structured specs and reproducible execution plans (task -> steps -> code blocks) with reviewable logs.
- Implemented a delta-learning workflow: store user-approved fixes as minimal deltas and re-apply them to improve future outputs without model retraining.
- Built a safety-first execution pipeline with explicit confirmations, sandbox runs, rollback/backups, and validation checks to prevent unverified code changes.
- Developed a modular knowledge base (JSON + SQLite) and RAG-style vector search over reusable code fragments and recipes; supports offline mode and low-resource operation.

P4G1 (GalaxyOne) - Session-Based PvP Space Combat (GDD + Prototyping)

Game Designer / UE5 Developer | Unreal Engine 5 (C++/Blueprint) | In development

- Authored and iterated a full GDD for a 3D space simulator with session PvP focus, including core loop, factions, progression, economy, and UI direction.
- Defined two flight modes (arcade/atmospheric and inertial/space) and a ship energy-management system as key gameplay differentiators.
- Prototyped flight-control and targeting behaviors using complex vector/angle math (roll/pitch coupling, inertial damping, overshoot control) with heavy debug instrumentation for tuning and stability.
- Implemented a multiplayer-ready ship-control prototype using UE5 Network Prediction concepts (client-side prediction, reconciliation) including input buffering and correction under simulated lag.

Galaxy VR - Asteroid Defense Experience (Oculus Quest 2)

Solo Developer | Unreal Engine 5, VR Interaction, Physics | Published on SideQuest

- Built a VR prototype where the player defends a small planet by physically throwing asteroids at attacking UFOs.
- Prioritized interaction feel, physics-based gameplay, and VR user experience; tested on real Quest 2 hardware.
- Published a playable build on SideQuest.

ADDITIONAL PROJECTS & LINKS

- Itch.io (all public projects): https://rinzlerside.itch.io/
- Roaming Rover (UE5, team): command-driven rover movement + hazards (itch): https://noah-calderwood.itch.io/roaming-rover
- Bee Nice Prototype (UE5, team): horror-comedy maze game (role: programmer): https://noah-calderwood.itch.io/bee-nice
- Enoyinger Prototype (UE5): 2D climbing platformer: https://rinzlerside.itch.io/enoyinger-prototype
- Bunker Escape (UE5): atmospheric bunker level (level design & pacing): https://rinzlerside.itch.io/bunker-escape
- Unity Prototypes Pack (Unity): 4 mini-games: https://rinzlerside.itch.io/unity-prototypes-pack
- 3D Modeling Portfolio (Maya/Blender): LEGO Samurai (video render), TOS communicator (Star Trek), Golf Trophy: https://rinzlerside.itch.io/3d-modeling-portfolio-golf-trophy-lego-character
- **Project S (private): demo available upon request; can discuss partial technical implementation and do a live code walkthrough (within NDA constraints).**

LANGUAGES

- Russian - Native
- Ukrainian - Native
- English - Fluent (professional working proficiency)
- Spanish - Fluent (professional working proficiency)
- German - Intermediate
- Polish, Belarusian - Conversational comprehension

EDUCATION

Houston Community College - Houston, TX, USA

AAS in Game Design and Simulation for Programmers (Expected May 2026)

Institut Ramon Berenguer IV - Cambrils, Spain

Baccalaureate

NOTE

Additional portfolio available upon request: UE5 C++/Blueprint code samples, NASM exercises, and low-level C systems/security research labs (demonstrations oriented toward defensive learning and OS fundamentals). Also includes more level-design prototypes. Previous non-technical work experience is primarily soft skills and management-oriented; details available upon request.