

Game engineer with 7+ years in the industry, 6 of them at one studio: mobile and PC titles in C# and Unity plus the .NET services behind them. Hired for three things — moving legacy engines forward without stopping the product, turning prototypes into architecture that holds tests, and putting AI agents to real work in a delivery pipeline.

EXPERIENCE

Helio Games Limassol, Cyprus
Jul 2020 – Present
Senior Programmer since Jul 2025 (Middle 2021–2025, Junior 2020–2021)

- **Legacy engine migration:** Moved a live Unity client from 2017 to Unity 6.3 across six LTS steps without pausing the product. Each step closed by a tagged checkpoint and verified by compile, a 5v5 match, a standalone build and asset bundles.
- **Prototype to production architecture:** Restructured a 343-file game mode into layered assemblies: tests 98 → 289 EditMode plus 14 PlayMode end-to-end, ScriptableObject configs 29 → 0 (JSON-driven), mutable statics 9 → 0 (DI registry), the largest system 1665 → 780 LOC. Chose in-place refactoring after a full rewrite attempt proved slower.
- **Game meta backend from scratch:** Built the meta service on MagicOnion StreamingHub, MongoDB and .NET Aspire: JWT access and refresh with only token hashes stored, Steam as an auth provider, role-based access, heartbeat with automatic reconnect, and packet-loss measurement under load.
- **Production incident diagnosis:** Traced a live DDoS to its amplification root in the RUDP layer through 46 client sessions and 2 crash dumps. Removed an O(n) scan per unknown packet and per-packet logging behind a failover flag, covered by 5 regression tests.
- **Feature delivery and platforms:** Cut memory use 30% and CPU 20% with allocation-free patterns. Shipped 15+ features including a battle pass, integrating Firebase, AppsFlyer, Pushwoosh, Unity IAP and Xsolla.
- **Mentoring:** Took a mid-level programmer through probation, and moved the team to allocation-free code with a documented asset workflow they still follow.

Nival Saint-Petersburg, Russia
Jan 2019 – Jul 2020
Junior Game Designer

- **Content systems:** Delivered 10+ tower types with distinct mechanics to release in a tower-defense title, and wrote the technical specifications artists and programmers built from.
- **Open source and community:** Released 2 company projects as open source, then organised a team of enthusiasts and launched 2 community-run game servers.

SELECTED PROJECTS

- **AI work platform:** Replaced spreadsheet-based task tracking with a local platform: ASP.NET Core (.NET 10), Blazor WASM PWA, MongoDB, an own MCP server exposing 13 tools, and n8n orchestration with a custom node for agent steps. MVP in a single session at 41/41 unit tests, verified by a task running the full pipeline end to end.
- **RAG assistant for university applicants:** Took a retrieval assistant from nothing to a deployed service in 10 days: a 700-chunk corpus over two domains, Chroma with fastembed, and an LLM relevance judge that replaced a brittle 0.52 similarity threshold; deployed under systemd after Docker hit OOM on a 961 MB host.
- **Conversation-practice Telegram bot:** Runs in production with analytics built from scratch: 0 → 374 events over 35 days from 12 users, 88% dialogue completion, 295 passing tests.
- **Prime World open source:** Top contributor of the public release, 19 of its 25 commits: audited licences and purged proprietary vendor SDKs from the entire git history, not just the current tree – github.com/nival/Prime-World.
- **Shipped titles:** Mutiny: Pirate Survival, Westland Survival, Amikin Village, Prime World, Prime World: Defenders 2.

SKILLS

Languages C#, Python, SQL
Game Unity, DoTween, Unity IAP, NoesisGUI, asset pipelines, IL2CPP
Backend ASP.NET Core, Blazor, MagicOnion/gRPC, MongoDB, .NET Aspire, Docker
AI tooling Claude Code agents, MCP servers, RAG, n8n

EDUCATION

BSTU “VOENMEH” Saint-Petersburg, Russia
Sep 2022 – Oct 2025
PhD programme, Systems Analysis (thesis in progress); GPA 4.76

BSTU “VOENMEH” Saint-Petersburg, Russia
Sep 2019 – Aug 2021
MSc, Software Engineering; GPA 4.88

BSTU “VOENMEH” Saint-Petersburg, Russia
Sep 2015 – Aug 2019
BSc, Software Engineering; GPA 4.68

Paper on methods for assessing situation-recognition quality accepted for publication (2027).