

LUIGI GARCIA { Game Programmer }

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I am a highly passionate game programmer with over 10 years of experience. I've worked with a wide range of technologies (particularly Unreal and Unity), creating games across various genres for PC, VR, mobile, and web platforms.

I enjoy solving complex problems, implementing unique gameplay mechanics, and architecting core systems.

My specialties include gameplay programming, software architecture, multiplayer/netcode, game engines, and optimization.

I aim to add value and make a positive difference in the teams I join and projects I contribute to.

My objective is to create remarkable gaming experiences and continue improving my skills.

SKILLS

- Languages: C++ (expert), C# (expert), Python, Lua, Java.
- Engines: Unity (expert, 10 years), Unreal (advanced, 3 years), Hazel, JMonkey.
- Software architecture: design patterns, ECS, data-oriented, object-oriented, unit testing.
- Networking: synchronization, lag compensation techniques, client/server, client prediction.
- Strong math and physics: vectors, matrices, quaternions, rigid bodies, collisions.
- Knowledge of algorithms and data structures.
- Optimization, awareness of low-level programming: memory layout, caching, CPU and GPU.
- Graphics programming, OpenGL, shader programming.
- AI: state machines, behavior trees, pathfinding, steering behaviors.
- Analytical and problem-solving skills. Attention to detail.
- Communication skills: simple, precise, and to the point. Effective link with other disciplines.
- Quick learning and good teaching/mentoring. Ability to abstract complex concepts.

EXPERIENCE

Lead Game Programmer at Hololabs, Victoria, Canada [2023 - 2024]

- Led the team working on the Phantasms VR game. Coordinated development and made the communication link with design and production.
- Implemented core player mechanics and multiplayer networking for Phantasms VR game.
- Wrote a project report that directed the development towards the worldwide launch of the Sky Haven AR game, focusing on performance and asset management, particularly in the FTUE.

Senior Game Programmer at Ludia, Montreal, Canada [2019 - 2022]

- Wrote documentation and hosted workshops on UI and memory optimization. Shared the knowledge company-wide. Improved the UI performance of Disney and DC games by 50% in rendering, CPU, and memory.
- Implemented park builder mechanics for the Disney game.

Lead Game Programmer at People Corp Gaming, Montreal, Canada [2017 - 2018]

- Implemented a scripting game library on top of Unity for the company's hyper-casual platform, allowing the delivery of new mini-games without updating the player executable.
- Implemented match3 mechanics for the game Fuzzy Critters PvP Match3.

Senior Game Programmer at Pandora Game Studio, Rio de Janeiro, Brazil [2015 - 2016]

- Implemented movement and combat mechanics for the game Bushido Saga Samurai Nightmare.
- Implemented a data-driven items system for the game Bushido Saga Samurai Nightmare, enabling the creation of numerous different items/consumables/collectibles/equipables from the design side.

Game Programmer at Izyplay Game Studio, Pelotas, Brazil [2013 - 2015]

- Implemented combat mechanics and boss AI for the game Apocalypse: Party's Over.
- Shipped many advergames of various genres.

TOP PROJECTS

Arcade Car Physics Controller - Personal Project - [Asset Store Page](#) | [Video Demo](#)

A custom car physics controller for arcade-style games. Released on the Unity Asset Store.

Phantasms VR - Hololabs - [Landing Page](#)

A coop multiplayer VR game involving ghost-capturing combat, exploration, and puzzles. In closed alpha. The application was sent to CMF (Canada Media Fund).

Bushido Saga Samurai Nightmare - Pandora Game Studio - [Steam Page](#)

A samurai action-adventure RPG game featuring sword combat.

Apocalypse: Party's Over - Izyplay Game Studio, Hoplon Infotainment - [Steam Page](#)

An action beat'em up game featuring the viral cartoons of the Piologo Brothers YouTube channel.

EDUCATION

Major in Software Engineering at FATEC SENAC, Brazil.

- Graduated with excellence, A+ average.
- Scholarship student. Research and development lab.