Lucas Nascimento

Software Engineer

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SUMMARY

Software Engineer with 6+ years of experience at the intersection of game development, simulation, and education. Specialized in building real-time, physics-based environments in Unity for learning purposes, including robotics competitions and skill-building platforms. Passionate about scalable systems, playful learning, and designing experiences that map game mechanics to educational goals. Proficient in Unity3D, C#, Python, and APIs.

CORE SKILLS

Languages & Tools: Unity, C#, Python, PHP, Git, REST APIs, Docker, Redis, Java;

Game-Based Learning: Educational game design, simulation, robotics competitions, sensor and physics modeling; **Software Engineering:** System design, performance optimization (profiling, memory, multithreading), secure data handling;

Team Collaboration: Agile/Scrum, cross-disciplinary teams (designers, devs);

PROFESSIONAL EXPERIENCE

Software Engineer

Robocup Brasil, Sorocaba, BR – Remote (Full-time)

11/2022 to Present

- Built and maintained scalable front-end and back-end systems to support high-volume robotics events.
- Refactored legacy codebases, improving performance and maintainability across multiple platforms.
- Integrated third-party APIs and services, ensuring a robust and low-latency communication.
- Led performance audits that resulted in improved SEO and web responsiveness.

Key Technologies and Tools: PHP, CI/CD, Docker, Redis, REST APIs, Git, Agile.

Unity Game Developer

Olimpíada Brasileira de Robótica, Natal, BR – Remote (Contract)

08/2020 to Present

- Developed and optimized Unity simulation environments, improving physics and frame stability by over
- Integrated REST APIs with server backends; secured data exchange via AES encryption.
- Created custom virtual robots, scenarios, and sensor modules for robotics competitions.
- Supported virtual robotics competitions, including RoboCup Worldwide 2021.
- Collaborated with educators and technical teams to iterate features based on real-world feedback.

Key Technologies and Tools: Unity, C#, Profiling Tools, Git, Python, Remote APIs, Agile.

Unity Developer (R&D – Educational Robotics)

IFRN, Natal, BR

02/2018 to 11/2018

- Designed and developed Unity-based simulation tools for K–12 robotics education.
- Created a visual programming language (rEduc) transpiled to C# for robot control.
- Built a modular virtual kit enabling realistic robot behaviors in classroom environments.

Key Technologies and Tools: Unity, C#, Education Tech, Custom UI Systems

EDUCATION

Bachelor of Information Technology

UFRN, Rio Grande do Norte, Brazil

02/2019 to 12/2022

• Minor in Game Development

Certificate Program in Web Development

IFRN, Rio Grande do Norte, Brazil

05/2015 to 12/2018

PUBLISHED PAPERS

sBotics - Gamified Framework for Educational Robotics: First Author. Published in the Journal of Intelligent and Robotic Systems

04/2021

sBotics: Simulation Applied for the Practical Component of the Brazilian Robotics Olympiad.

10/2019

LANGUAGES

Portuguese: Native **English:** Fluent (C2)

Spanish: Intermediate (B1)