Pedro Vilas Boas

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Unity and C# game developer, designing and building games since 2017, now moving toward production. At Blue Gravity Studios, architects core gameplay, UI and audio systems for an unannounced title and, alongside programming, maintains the team's main content-tracking spreadsheet, manages tasks and helps coordinate priorities with the other programmers. Co-founded FORJA at CESAR School, mentoring about 15 multidisciplinary student teams from idea to launch. B.Sc. in Computer Science (2026).

Core Competencies

- **Gameplay Programming (Unity/C#)**: event-driven and component-based architecture, object pooling, ScriptableObject systems, state machines, physics and character controllers, SOLID, Observer and Strategy patterns.
- **Systems & Tools**: procedural generation (DLA), custom Unity editor tools, UI architecture, audio systems (FMOD), settings and input (rebinding, gamepad), progression and meta systems, profiling and optimization.
- **Game Design**: Game Design Documents, systems design, balancing, level design, prototyping, in-game telemetry and metrics analysis, MDA framework.
- **Production & Coordination**: content and feature tracking dashboards, task management, scoping and development timelines, project documentation, mentoring multidisciplinary teams, event organization.
- **Engines & Tools**: Unity, Unity Input System, Addressables, URP, FMOD, Godot (GDScript), C, Git, Figma, Notion, Aseprite, Agile.

Professional Experience

Blue Gravity Studios — **Recife, Brazil (remote)**
Unity Game Developer — *Nov 2025 - Present*

- Architected core gameplay systems in Unity (C#) for an unannounced title, including a reactive event-driven stat framework, a universal object pooling manager, and a modular weapon system supporting six combat archetypes.
- Built a procedural map generator using a custom Diffusion-Limited Aggregation (DLA) algorithm for road placement and multi-zone biomes, plus custom Unity editor tools to accelerate level authoring.
- Designed a centralized UI architecture (character select, inventory, NPC shops, multi-tier tooltips) and refactored an inheritance-based button framework from 18 scripts to 4 component-based scripts.
- Delivered progression and meta systems: chain-quest pools, boss spawns, timed map events, and an extraction loop with dynamic difficulty scaling; authored internal technical documentation.
- Built the game's audio system on FMOD from scratch: data-driven sound definitions for 380+ events, per-category audio profiles, stage music and ambience, pause snapshots and editor validation tools.
- Built the settings system (resolution confirm and revert, 2K/4K/ultrawide, HUD scale, key rebinding) and gamepad support with device-aware input icons and a shader-drawn virtual cursor.
- Built player-facing UI and game feel: an end-of-run summary screen, meta-progression shop screens, a targeting mode, live stat tooltips, hit feedback and custom UI shaders.
- Diagnosed build-only failures (editor-only flags on 188 components; assets duplicated between Resources and Addressables) and audited the project's assets, identifying about 17,000 unused files.
- Alongside programming, built and maintains the team's main content spreadsheet, creates and manages tasks, helps coordinate priorities with the other programmers, and is the programming contact for the audio designer.

VUÁ VUÁ — **Recife, Brazil**
Freelance Unity Programmer — *Jun 2025 - Jun 2026*

- Built an NPC-triggered quiz system in Unity (C#) for a 2D platform and rhythm game made with Brazilian public culture funding: ScriptableObject quiz definitions, per-profile completion saves, one-time item rewards and edit-mode unit tests.
- Added an NPC shop on top of the project's inventory framework and made the player's inventory persist between scenes through a single scene-transition helper.

Point N' Sheep — **Recife, Brazil**
Game Programming Intern — *Feb 2025 - May 2025*

- Helped build player movement, AI behaviors and UI interactions in Unity (C#) for Hellhound Academia, an unreleased deck-building shooter with local co-op, as modular SOLID components.
- Helped make a tool that detects and organizes level-design assets automatically, cutting level-creation time by 30%, and input-device detection that adapts the UI and controls.
- Helped profile and optimize performance (pooling, draw call batching, refactored update loops) and integrate art and design assets with artists and designers; fixed bugs.

Subcondomínio RioMar Recife (Grupo JCPM) — **Recife, Brazil**
Software Development Intern — *Jul 2019 - Jan 2020*

- Analyzed data for CRM strategy, maintained the internal platform, and ran IT asset tools and staff training.

Leadership & Community

FORJA (indie game development initiative) — **CESAR School, Recife**
Co-founder and Mentor — *Jun 2024 - Aug 2026*

- Mentored about 15 multidisciplinary teams (100+ students in 3D, design, UI/UX, programming and game design) on GDDs, scope, timelines and priorities; three finished their games and one signed with an independent publisher.
- Represented FORJA in partnership meetings with the publisher, producers from Kokku, and Diorama's leadership.
- Organized, ran and spoke at FORJA's activities at REC'n'PLAY 2024 and 2025 (MDA framework, team management, GDDs, Unity and Godot).

CESAR School — **Recife, Brazil**
Teaching Assistant — *2023 - 2024*

Imperative and Functional Programming (2023), Software Infrastructure (2024), and Algorithms and Data Structures (2024), all taught in C. Graded work, built automated grading tests, and helped revise syllabi.

Game Jam DinhoAPS — **Recife, Brazil**
Mentor and Speaker — *Aug 2022 - 2023*

Mentored jam teams, ran Unity workshops for beginner to advanced participants, and spoke at two editions in 2023.

Selected Projects

- **Punch! Throw!! Score!!!** (2024, solo, Godot): HD-2D competitive multiplayer action game built in about two months; designed the full gameplay loop and a roster of characters with distinct abilities; wrote the GDD. Official Selection, SBGames 2024 Festival de Jogos.
- **Void Protocol** (2025, solo, Unity): progression, difficulty scaling and branching upgrades, with an in-game telemetry system for data-driven balancing; proof of concept for the B.Sc. thesis.
- **Cuty Cuty** (2025, solo, Godot, two-week jam): "Pull & Release" and "Spin" mechanics and rogue-lite progression.

Education

CESAR School — **Recife, Brazil**
B.Sc. in Computer Science, GPA 8.30/10 — *2022-2026*

Thesis (grade 9.5/10): "Player Behavior Analysis and Classification: A Hybrid Approach with Quantitative and Qualitative Data." Proposed a hybrid model that combines self-report, content choices, performance telemetry and engagement dynamics to classify player motivation (Bartle's typology) and guide real-time game adaptation.

ILSC — **Vancouver, Canada**
English Immersion Exchange Program — *Jun 2015 - Aug 2015*

Languages

- Portuguese (native), English (fluent), Spanish (intermediate), French (basic).

Honors and Awards

- **Official Selection** – SBGames 2024 Festival de Jogos, Punch! Throw!! Score!!! (2024).
- **Best Game** – Mostra TechDesign 2023 (CESAR School), Slay the Spire but in C (2023).
- **Interviewed by Globo** – Gamer's Day feature on game development (2024).