Joao Pires Henares

Game Development, Tech Design and Tools & Systems
jvphenares@gmail.com | (574) 302-7080 | joaohenares.com

EDUCATION

Florida Interactive Entertainment Academy (FIEA), University of Central Florida Orlando, FL
Master's in Interactive Entertainment (Tech Design Track) Graduating December 2026
Focus: Gameplay systems, scripting, technical pipelines, rapid prototyping, cross-disciplinary collaboration.

University of Notre Dame Notre Dame, IN
B.S. in Computer Science Graduated December 2024
Focus: AI and Systems Development | GPA: 3.82 | Honors: 4 times Dean's List nominee

TECHNICAL SKILLS

Engines: Unreal Engine (Blueprints + C++), Unity
Programming: C#, C++, Python, Go, TypeScript
Tech Design: Gameplay systems, tools creation, UX interaction flows, event scripting, feature documentation
Other Competencies: Multithreading, AI/ML implementation, data pipelines, networking, design patterns
Languages: Portuguese (native), English (fluent), Spanish (advanced), German (intermediate)

TECHNICAL DESIGN COMPETENCIES

Gameplay Scripting: Unreal Blueprints, Unreal C++, C#; building modular, designer-facing systems
Systems Design: Combat, movement, puzzles, AI behavior, XP/progression, procedural systems
Rapid Prototyping: Strong iteration speed – multiple prototypes per week at FIEA
Tools & Pipelines: Creating debug tools, data-driven configuration systems, designer QoL tools
Debugging & Profiling: Performance tuning in Unreal and Unity (logs, gameplay debugger, CPU/GPU profiling)
Design Documentation: One-page design docs, feature specs, workflow documentation for teams
Cross-Disciplinary Collaboration: Translating design needs to engineering tasks; supporting designers with tools and scripting
Level/Gameplay Scripting: Triggers, interactions, event systems, scripted sequences

EXPERIENCE

BTG Pactual São Paulo, Brazil
Software Engineering Intern Summer 2023, Summer 2024

- Built an **AI-powered document-processing pipeline** that reduced manual extraction work by **90%**.
- Developed full-stack features using **TypeScript, React, and Go**, following clean architecture practices.
- Automated recurring workflows, improving team productivity and reducing manual overhead.
- Expanded experience with **AWS**, CI/CD, and production-grade engineering systems.

GAME DEVELOPMENT AND TECH DESIGN EXPERIENCE

FIEA, University of Central Florida Orlando, Florida
Tech Designer Since Fall 2025

- Created dozens of **rapid prototypes** exploring mechanics across genres (movement, rhythm combat, AI, physics, puzzle logic).
- Designed and implemented gameplay systems in **Unity** and **Unreal Engine (Blueprints + C++)**.
- Built internal **debugging tools**, data-driven systems, and designer-facing utilities (spawners, visualization tools, data tables, scripting helpers).
- Collaborated with multi-disciplinary teams to deliver playable builds under tight constraints.
- Authored a variety of design documentation, including **one-page feature designs**, **design pitch decks**, and full **Game Design Documents (GDDs)**.

SELECTED PROJECTS

338th Training Squadron of the U.S. Air Force – Unannounced Productivity RPG App (Unity)
Team Lead for a 7-person squad, In progress

- Leading a **7-person multi-disciplinary squad**; responsible for feature planning, sprint coordination and milestone presentations.
- Designing and implementing core **gameplay systems, UX flows, and progression structures**.
- Coordinating designers, engineers, artists, and production to maintain **alignment and delivery velocity.**
- Creating **internal tools and documentation** to support team productivity and pipeline consistency.

Ravenous Sky – 18-Person Adventure Game (FIEA, UE5)
Technical Designer, In progress

- Implementing the **character controller** (movement logic, physics-based interactions, responsiveness).
- Building a scalable **debris system** with designer-editable behavior rules.
- Integrating audio through **Wwise** (events, RTPCs, triggers, mix states).
- Supporting engineering with debug tools and gameplay scripting for systems and interactions.

2DBonk – Humor-Focused Survivor Roguelike (3-Week Production, Unity)
Solo Design + Programming

- Designed and implemented **10 enemy types**, **3 playable characters**, **6 passives**, **5 weapons**, **3 stages**, **2 puzzle mechanics**, an **upgrade store**, and a full **XP/progression system**.
- Built custom state machines for combat, enemy behavior, and event-driven rhythm interactions.
- Shipped a polished prototype in **3 weeks**, earning **Top 3 in a FIEA Tech Design industry review**.

Saparkour — Speedrunning / Rage Game (2-Week Production, Unity)
Solo Design + Programming

- Built a **complex character controller** supporting multiple physics types, grappling, and high-speed traversal.
- Designed and implemented **5 handcrafted levels** and **15+ interactive props** with distinct behaviors.
- Created a **grappling + bouncing movement system** tuned for precision speedrunning and fast retries.
- Developed a local **leaderboard system** for performance tracking and competitive play.
- Produced a polished prototype in **2 weeks**, focused on responsive controls, iteration speed, and readability.
- Currently developing a second prototype for a Game Jam.

Additional Projects & Highlights

- Awarded at MIT Mini Game Jam and Notre Dame Game Jam for rapid prototyping and technical execution.
- Integrated a Godot-based level-sharing system connected to a custom server backend.
- Developed a ninja training simulator, a forest pollution strategy game, a productivity RPG app and multiple genre-crossing prototypes through FIEA.

SELECTED WORKS PORTFOLIO

2DBonk (Roguelike Prototype, 2025) – pizzatunes.itch.io/2DBonk
Saparkour (Movement/Speedrunning Prototype, 2025) – pizzatunes.itch.io/Saparkour
Additional prototypes webpage: pizzatunes.itch.io