

Vinicius Vieira Júlio

Programming, Unreal Engine, architecture, ArchViz and technical design

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Multidisciplinary professional with 13 years of programming experience, over 7 years with Unreal Engine, and approximately 6 years of academic and practical experience in Architecture and Urbanism. Work spans games, technical leadership, production tools, automation, backend, ArchViz, CAD, SketchUp, commercial activations, UI/UX and digital art. Promoted to Programming Lead at Meta Original about six months after joining as a Level Designer.

PROFESSIONAL EXPERIENCE

Meta Original | Unreal Engine Programming Lead | Jul 2025 to Aug 2026

- Promoted roughly six months after joining as a Level Designer. Led C++ and Blueprint developers, set system architecture, reviewed code and supported production.
- Developed the Meta Core Tools suite: a Python/PySide6 BuildManager, an Unreal asset library, scene automation, validation and optimization tools, and build and deployment pipelines.
- Built a multiplayer-ready ArchViz template, implemented Pixel Streaming, and connected Unreal C++ applications to backend services through HTTP/API and client-server communication.
- Worked on ISM/HISM, Nanite, LODs, draw calls, collision, materials, rendering settings and large-scene performance.

Meta Original | Level Designer, ArchViz | Jan 2025 to Jun 2025

- Built interactive environments and digital models for real estate developments, covering spatial composition, PBR materials, asset organization and real-time optimization.
- Collaborated with technical and visual teams to balance fidelity, navigation and performance in large-scale scenes.

Neanderthal Games | Independent Game Developer | 2020 to present

- Develops games and interactive systems with Unreal Engine, Lua/LÖVE and Godot, covering programming, game and level design, UI/UX, visual direction, documentation, testing and builds.
- Projects: Twinspell, Kalaya - Tales of Fallen Gods, Arcana Checkmate, Zarq Phantasm - Shattered Balance, AetherSlash and StarfallArena.

Partenon Studios | Independent ArchViz Producer | 2019 to present

- Produces architectural models, visualizations, renders, digital models and interactive experiences using SketchUp, Unreal Engine, Twinmotion, Blender and Photoshop.
- Works on interiors, facades, lighting, PBR materials, scene composition and real-time optimization.

Technical Designer & 3D Visualization | Commercial projects for HoYoverse/miHoYo and other brands | 2022 to 2025

- Developed CAD technical drawings, SketchUp models, site-planning studies and spatial layouts for booths, brand activations and temporary structures. Produced banners, flyers, logos, image treatments and promotional assets as applicable.
- Contributed to commercial projects for HoYoverse/miHoYo and the Heineken Floating Bar through technical design, visualization and graphics production. These were commercial projects, not direct employment by the brands.

GAMES AND GAMEPLAY PROJECTS

Twinspell | Unreal Engine | action roguelike in development

- C++ and Blueprint gameplay, modular architecture, replicated components, top-down magic combat, projectiles, parry, dash, abilities, AI, dynamic navigation, destructible and interactive objects.
- Built run management, seeds, gold, progression, loot and pickups; procedural rooms and dungeons; encounters, doors, shops, chests, altars, events, weapons, spells, rarity, artifacts, economy and synergies.
- Created combat HUD, inventory, shop and minimap UI, debugging tools and automated tests. The game has a public Steam page and alpha test builds; full cooperative multiplayer remains on the project roadmap.

Kalaya - Tales of Fallen Gods | Unreal Engine | action RPG

- Created gameplay, game and level design, worldbuilding, UI/UX, melee and ranged combat with weapon switching, light, heavy and aerial combos, special attacks and finishers.
- Implemented spells, elemental damage, parry, dash, lock-on, invulnerability frames, attributes, progression, specializations, inventory, equipment, consumables, AI, animation integration, effects and visual feedback.
- Built worlds, cities and biomes, level management and optimization. A public demo is available.

Arcana Checkmate | Lua and LÖVE | tactical card battler

- 2D game with chess-inspired positioning, deckbuilding, pieces, cards, abilities, modifiers, traps, buffs and debuffs, synergies and roguelike progression.
- Implemented decks, boosters, collection, upgrades, UI, experimental PvP systems, automated tests, validation tools and analytics integrations. Public Windows beta on itch.io.

Zarq Phantasm - Shattered Balance | Unreal Engine

- Game jam prototype with top-down action, exploration, elemental powers, characters from parallel dimensions and cooperative mechanics; informed the concept of Twinspell.

AetherSlash | Unreal Engine

- Action roguelike project focused on deeper C++ work with Gameplay Framework, attributes, modular components, combat, abilities, elements, character architecture and progression.

StarfallArena | Godot

- Web and mobile arena combat prototype with characters, bots, abilities, UI and controls adapted for mobile devices.

TOOLS AND PRODUCTS

Meta Core Tools and Unreal BuildManager

- Production tool suite. The Python/PySide6 BuildManager manages configuration, compilation, packaging, queues, scheduling, semantic versioning, history, server deployment and delivery through Discord notifications and download links.

Unreal Asset Library

- Proprietary Quixel/Megascans-inspired asset library with a database, metadata, search and reuse, Asset Registry queries and Unreal HTTP/API integration.

Scene Assembly, Optimization & Procedural Tools

- Editor tools for scene assembly, validation, organization and standards; asset checks, ISM/HISM, Nanite, LODs, draw calls, collision, materials and performance. Studies and development of procedural buildings, houses, villages and architectural modules.

Multiplayer ArchViz and Pixel Streaming

- Reusable Unreal template for multiplayer ArchViz, interactive experiences, Pixel Streaming, external services and client-server architecture.

Analytics, backend and dashboards

- Telemetry collection and batch processing with Unreal, Python, Go, Google Apps Script, Sheets and Drive, Cloudflare Workers and D1; HTTP/REST, JSON and analysis dashboards.

Unreal Gameplay Intelligence

- Unreal plugin in development for Gameplay Tag telemetry, deaths, locations, item usage, progression, player behavior and build comparisons for designers.

MythVault

- Firebase-backed worldbuilding app in development with maps, characters, items, relationships, stories and a connected universe wiki.

ARCHITECTURE, ARCHVIZ AND COMMERCIAL PROJECTS

Commercial projects for HoYoverse/miHoYo | 2022 to 2025

- Genshin Impact at Shopping Eldorado, São Paulo, 2022; Paimon de Areia at Copacabana, Rio de Janeiro, Carnival 2022; Genshin Impact at Anime Friends 2022, São Paulo; Genshin Teleport at BarraShopping, Rio de Janeiro, 2022.
- Contributed to HoYoverse projects at Brasil Game Show 2022 and 2023, São Paulo, including work related to the 500 m² booth in 2023. Genshin Impact Summer Festival at Shopping Tijuca, Rio de Janeiro, and Shopping da Bahia, Salvador, December 2023.
- Genshin Impact Carnival 2024, São Paulo, with an approximately 12-meter inflatable Paimon; Inazuma-themed Carnival 2025 activation in Barra da Tijuca, Rio de Janeiro, with floral references to Raiden Shogun, Yae Miko and Yumemizuki Mizuki.
- Contributions as applicable: CAD, SketchUp, technical drawings, 3D modeling, site planning, scenography, spatial visualization, banners, flyers, logos, visual communication, image treatment and promotional assets.

Heineken Floating Bar | São Paulo, 2023

- Contributed technical design, CAD, SketchUp, 3D modeling and architectural visualization for a floating promotional installation on the Pinheiros River, approximately 400 m², within the Green Your City initiative.

Loteamento Paineiras

- Architectural visualization, renders, site-planning studies and real estate development presentation.

Rock in Rio | Palco Mundo

- Technical studies for LED system installation and positioning, considering integration with the performance space.

Architecture, ArchViz and level design

- SketchUp and Blender modeling, 2D CAD drawings, architectural documentation, massing studies, interiors, facades, booth design, lighting, PBR materials, renders, Unreal/Twinmotion experiences, PCG vegetation, World Partition, level streaming, open worlds, procedural houses, blocks and cities, and geometry optimization.

TECHNICAL SKILLS

Programming: C++, Blueprints, Python, Go, Lua, JavaScript, HTML, CSS, Google Apps Script.

Engines and gameplay: Unreal Engine 5, LÖVE/Love2D, Godot, Unity prototyping; Gameplay Framework, Gameplay Tags, GAS/GAS-like, UMG, Common UI, Enhanced Input, MVVM, Niagara, MetaSounds, Motion Warping, FullBodyIK, Behavior Trees, StateTree, Chaos, PCG, World Partition, level streaming, Nanite, Lumen, ISM/HISM, Pixel Streaming, editor and runtime plugins, subsystems, EUW, Asset Registry, replication, AI, combat, inventory, abilities, minimap, time-stop, save systems, enemy spawning, procedural systems and multiplayer.

Backend and data: Firebase, Supabase, DuckDB, Cloudflare D1 and Workers, Google Apps Script, Sheets and Drive, HTTP/REST, JSON, S3/R2-style uploads, telemetry, batch analysis and dashboards.

Desktop, web and production: PySide6, PyInstaller, Python CLI, Vite, Go applications, Git, GitHub, Azure DevOps, Anchorpoint, Perforce, Visual Studio, JetBrains Rider, VS Code, automation, builds, packaging, deployment, testing, debugging and code review.

Architecture and modeling: CAD, 2D technical drawing, architectural documentation, SketchUp, Blender, 3D modeling, site-planning studies, massing, facades, interiors, booth design, Unreal Engine, Twinmotion, PBR materials and real-time rendering.

Design, art and audiovisual: Adobe Photoshop, Adobe After Effects, video editing, post-production, digital compositing, image treatment, visual identity, banners, flyers, logos, visual communication, traditional and digital drawing, illustration, digital painting, concept art, color, light, shadow, UI/UX, HUDs, menus, maps and responsive interfaces.

Cross-functional work: Technical leadership, system architecture, documentation, game design, level design, collaboration with programming, art, architecture and production teams.

EDUCATION AND BACKGROUND

Approximately six years of academic and practical experience in Architecture and Urbanism.

LINKS

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<https://thebeniex.github.io/kalayagame/>

<https://neanderthalgames.itch.io/>

<https://store.steampowered.com/app/3547800/Twinspace/>