

DATORIEN L. ANDERSON

Technical Game Designer

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CORE COMPETENCIES

STRENGTHS: Systems debugging • Failure-mode analysis • LLM evaluation • State-machine logic • • Simulation design • Technical documentation • Rapid prototyping • Unity/C# • Python/JSONL • VR training specific design • Level Design • Content Design

TOOLS: Unity • C# • Python • Perforce

WORK EXPERIENCE

Technical Game Designer | *GRX Immersive Labs – Independent Contractor, d/b/a Occybyte* | Dec. 2023 – Aug. 2024

- Designed and engineered base gameplay loop for an **Interactive Learning Experience** adapting a short film using C# and Unity (~300+ tracked hours).
- Created Game Design Documents covering AI behavior, UX flow, and procedural learning loops. Assessed project risk, market fit, and viability of the short film's core mechanic as an interactive learning experience.
- Built data-driven mechanics centered around learning about AI, ML and data and where it comes from. Built the base prototype of the core game loop of downloading information to use and sell based on the type of information.
- Researched and sourced publisher, investor, and technical partner leads aligned with the project's market positioning, prototype needs, and stakeholder goals for the stakeholder to use.

Simulation Designer | *Interplay Learning — Custom Simulation Team, Carrier Client* | Aug. 2021 – Jan. 2023 |

- Designed, implemented, and polished immersive training simulations across HVAC and electrical training content using Unity, C#, and Oculus VR.
- Built functional simulation logic from art assets, technical references, wiring diagrams, SME/client feedback, and legacy diagnostic materials.
- Worked on Carrier custom simulation content, Goodman refrigerant/refrigeration simulation QA, airflow testing procedures, combustion lab content, and a South African electrical-systems pilot.
- Validated component behavior, wiring assignments, voltage/current mappings, fault states, learner interactions, and expected in-sim responses across assigned simulations.
- Created local debugging scripts, logic flowcharts, and state-communication diagrams to validate interaction rules, branch behavior, and system state transitions.
- Used daily standups to surface blockers, ask implementation questions, clarify expected behavior, and resolve simulation logic issues with manager/support input.
- Implemented and maintained standardized documentation systems by transforming inconsistent instructions into a clear format ([Object: Action]), significantly improving training clarity and troubleshooting methodologies.

Owner | *Occybyte — Louisville, KY* | June 2020 – Present

- Pitched a product of Occybyte (DBA) to venture capital partners at 1517 Fund at pre-seed stage; secured \$1k in non-dilutive grant funding via the Medici Grant.
- Designed and sketched initial of designs to commission and collaborate with artists on production art, supplemented with a designed art brief for Occybyte for clothing and graphic design as reusable assets via Fiverr. This required vetting artists.
- Generated \$22k in consulting revenue through independent client work via GRX Immersive Labs.
- Published *A Fourth Axis: Modern Blood Composition*, an original supplement for VTM5E in the storytellers vault.
- Built early datasets for complex reasoning and creative writing analysis while self-teaching ML fundamentals; later turned into making an ML architecture.

PROJECTS

Carrier SPP / LED Diagnostic Framework — HVAC Diagnostic Simulation | Interplay Learning | Unity, C#, VR

- Designed and implemented a rule-based diagnostic simulation for Carrier HVAC training, translating real troubleshooting procedures into interactive Unity/VR learning flows.
- Architected a 36+-state LED diagnostic framework using state-machine logic, branching fault conditions, dynamic asset loading, and equipment-specific diagnostic outputs.
- Interpreted HVAC wiring diagrams, diagnostic procedures, and technician workflows to map voltage checks, resistance checks, fuse states, blower behavior, gas-pressure steps, and fault-code transitions into simulation logic.
- Built local debugging scripts, logic flowcharts, and state-communication diagrams to validate interaction rules, branch behavior, and system state transitions before integration.
- Reconstructed undocumented legacy diagnostic behavior from mobile references and restored missing simulation functionality across fault states and learner actions.

PORTFOLIO — GAME DEV, SERIOUS GAMES & AI

Interplay Learning — Carrier & Goodman (30+ Unity Scenes)

- [Circuit Board Commissioning \[Carrier\]](#) — Digital. Interactive 3D/VR simulation for hands-on HVAC circuit board commissioning training; learners work through real commissioning procedures in a safe virtual environment.
- [SPP Troubleshooting \[Carrier\]](#) — Digital. Step-by-step fault-finding simulation for single-package HVAC units; guides technicians through diagnostic decision trees mirroring real service scenarios.
- [Combustion Lab \[Goodman — QA\]](#) — Digital. Combustion diagnostics simulation for gas furnace training; learners analyze readings and identify failure conditions without physical equipment.
- [Refrigeration Lab \[Goodman — QA\]](#) — Digital. Refrigeration cycle troubleshooting and diagnostic simulation; covers system states, pressure readings, and component failure modes in a virtual lab environment.
- Contributed to [Goodman Toolbox](#) & [South African](#) immersive learning simulations, including QA support, simulation validation, and electrical/HVAC behavior checks.

Digital Games

- [Imp Unsummoning](#) — Digital. Merge-puzzle game where the player combines runes to banish incoming imps. Created the levels and designed the rune-combining mechanic.
- [Syntax \(Void OS\)](#) — Digital. Hangman rebuilt in Unity with three selectable input modes — binary (default), numpad, and text. First fully AI-engineered game; event-system driven architecture; word content generated by pulling nouns from Wikipedia by topic and theme category.
- [Fizzkrieg](#) — Digital. Browser-based mortar/volley tower defense where the player defends their domain using soda-based weaponry. Designed and balanced manually; AI handled the engineering implementation. Rapid prototype built as a paper-to-digital execution proof; iteration-based design.
- [Cthonic Caretaker](#) — Digital. Fast-paced grave-digging game; manage the dead before time runs out. 2D game built in typescript, where the content is procedural levels and required rules-based debugging of action-space.
- [Pothos](#) — Digital. Multi-user digital tamagotchi where all players share a single global entity and compete for limited communal resources that directly affect its mood and willingness to respond. Built on Case-Based Reasoning and softmax mood drift — a tragedy-of-the-commons experiment disguised as a virtual pet and a small-scale AI alignment study.

Analog Games & Systems

- [A Fourth Axis: Modern Blood Composition \(Storytellers Vault\)](#) — Analog (TTRPG supplement). Vampire: the Masquerade supplement introducing new blood composition mechanics for more granular bloodline identity, potency tracking, and power interactions. Pay-what-you-want.
- [PICK+E Game Engine — Castles Burning in the Night](#) — Analog (TTRPG). Ranked 210th with 26 ratings. A sci-fi operative must escape a besieged castle on the alien world of Brillagian; jammed together using existing PICK+E engine systems for the Appx. N Jam. Original five pages had a constraint of less than a day.
- [Anchor & Void System \(A/V System\)](#) — Analog (TTRPG module). Minimal zero-gravity movement and navigation rules for pen-and-paper games; covers space station design, zero-g traversal, and basic martial combat. Bring-your-own combat system. Submitted to and rated in the TTRPGs TEACH Jam.

DESIGN FRAMEWORKS (SELECTED)

- “RPG Scoring Framework (Definitive RPG Checklist) with Action Physicality Index” (Aug. 2025) — Formal rubric defining RPG-ness via six pillars + gender multiplier; separate action-physicality axis.
- “Extraction Shooter Design Rubric: Core Mechanics + UX/Mitigation” (Aug. 2025) — 10-point evaluation model with scoring formulas, bands, and audit worksheet.

CREATIVE WORK

- “Soul of Science: Homo-ludens, Play & the Theoi” (2025) — Published at hellenism.occybyte.com. Interdisciplinary essay on ludic theory, information theory, and Hellenic spirituality. Explores entropy modulation, the Music of the Spheres, and sacred play.
- “Xibirisms” (2022) — Honorable Mention, SFPA Long Form Poetry Contest. Poetry-prose. 35+ pages.

PUBLICATIONS

“Genre Labels as Signals: Taxonomy Divergence and Expectation Disconfirmation in Video Game Markets” — Anderson, D.L. SSRN, Feb. 2026. doi:10.2139/ssrn.6194038

“Diagnostic Benchmarks for Invariant Learning Dynamics: Empirical Validation of the Eidos Architecture” — Anderson, D.L. arXiv:2602.13322 [cs.CV/cs.LG], 2026.

“Certainty-Validity: A Diagnostic Framework for Discrete Commitment Systems” — Anderson, D.L. arXiv:2603.00070 [cs.LG], 2026.

AWARDS & HONORS

SFPA Honorable Mention — Long Form Poetry — Science Fiction Poetry Association, 2022. Awarded for Xibirisms.

MCJROTC Service Ribbons & Citations — MCROA Outstanding Unit Award; N-3-5 Officer Leadership Award (Fort Knox, Land Navigation Initiative); N-1-6 Distinguished Scholastic Achievement; N-2-1 Superior Marksmanship (Expert, Daisy M853, Sporter Class, 220+); N-3-3 Color Guard; N-4-1 Longevity & Fidelity.

EDUCATION

Eastern Kentucky University — Richmond, KY

Expected: 2026–2028

M.S. Computer Science (Artificial Intelligence & Data Science Concentration) | Status: Accepted

Full Sail University — Winter Park, FL

Completed: February 2021

B.S. Human-Computer Interaction (Game Design Concentration) |