

# Anthony James Padavano

## SENIOR EDUCATION PLATFORM ENGINEER (AI-NATIVE)

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| LINKS             | <a href="#">Portfolio</a> · <a href="#">GitHub</a> · <a href="#">agentic-titan</a> · <a href="#">ORGANVM System</a>  |  |
| PROFILE           | Independent engineer and veteran educator (11 years, 2,000 students) building production-grade AI orchestration and educational infrastructure in TypeScript and Python. Creator of a 103-repository system governed by automated dependency validation and 2,349+ tests. Specialist in translating pedagogical intent into technical architecture, specifically through AI-augmented pipelines that bridge model capabilities with real-world reliability. Expert in "solo production at institutional scale" using frontier AI as a compositional instrument. Full-Stack Developer (Meta). 18 years professional experience. MFA Creative Writing, LGBTQ+.   |  |
| TECHNICAL SKILLS  | TypeScript · Python · Claude Agent SDK · Node.js · CLI Tooling · GitHub Actions · CI/CD · Vitest · pytest · Zod · YAML/JSON Schema · React 18 · Express · pnpm Monorepos · Astro · Docker · Git · GCP / Terraform · WebSocket · Redis · D3.js · p5.js · Nginx  |  |
| SELECTED PROJECTS | <b>Classroom RPG Aetheria — AI-Native Learning Environment</b><br>A gamified education platform featuring AI-generated quests and knowledge crystals. Hardened for production with a 30-day technical sprint: implemented XSS mitigation (DOMPurify), robust AI failure handling with exponential backoff, and Sentry error monitoring. Achieved 100% pass rate across 45+ unit tests (Vitest).  |  |
|                   | <b>ORGANVM Eight-Organ System — 103-Repository Learning Infrastructure</b><br>A unified technical corpus of 21K code files and 3.6K tests. Governed by a formal promotion state machine and automated dependency validation (43 edges, 0 violations). Features 128 GitHub Actions workflows built on 18 reusable templates. A live demonstration of AI-native orchestration at scale.  |  |
|                   | <b>agentic-titan — Multi-Agent Orchestration &amp; Eval Framework</b><br>TypeScript framework for orchestrating complex, multi-step engineering and pedagogical tasks across autonomous agents. Includes 18 development phases and 1,276 tests. Engineered for high-reliability tool invocation and task decomposition.  |  |
|                   | <b>agent--claude-smith — Claude Agent SDK Reliability Layer</b><br>Advanced agent implementation built on Claude Agent SDK. Features session persistence, self-correction hooks, and structured tool invocation designed to understand and mitigate model capability gaps in production environments.  |  |
|                   | <b>Application Pipeline — CLI Pedagogical Orchestrator</b><br>Python-based CLI suite for pipeline orchestration: 8-dimension scoring rubric, campaign management, and YAML-driven state machine. Translates complex research and synthesis requirements into production-ready materials.   |  |
| EXPERIENCE        | <b>Independent Software Engineer &amp; Education Platform Architect</b> 2020 — Present <ul style="list-style-type: none"><li><b>AI-Native Orchestration:</b> Designed a 103-repository system governed by automated validation and 94 CI/CD pipelines — human directs pedagogical intent, AI generates volume, human reviews for correctness.</li><li><b>Platform Infrastructure:</b> Built CLI pipeline tools for scoring, drafting, and campaign orchestration using Python and YAML schema validation; optimized for enterprise-scale scannability.</li><li><b>LLM Reliability:</b> Developed multi-agent frameworks with the Claude Agent SDK (agentic-titan, 1,276 tests) featuring structured tool invocation and self-correction protocols.</li><li><b>Systems Governance:</b> Orchestrated 128 GitHub Actions workflows across 8 organizations, maintaining a validated dependency graph with zero back-edge violations.</li></ul> |  |
|                   | <b>Instructor — Composition, Writing &amp; Complex Systems</b> 2015 — Present<br><i>Miami Dade College, Keiser University, Nova Southeastern, FAU, Young Harris, Tarrant County, Broward, Palm Beach State</i> <ul style="list-style-type: none"><li>100+ courses across 8 institutions; 2,000+ students. Translating pedagogical requirements into accessible documentation and mentoring students in systemic technical rigor.</li></ul>   |  |
|                   | <b>Digital Marketing Manager</b> 2023 — 2024<br><i>Miami Dade College Foundation (nonprofit)</i> <ul style="list-style-type: none"><li>Architected and led foundation website overhaul and campaign design, increasing donor engagement by 32% through data-driven technical execution.</li></ul>  |  |
|                   | <b>Multimedia Specialist</b> 2011 — 2020<br><i>AJP Media Arts — clients incl. Boca Ballet Theatre, Forward Funding, Arts in Boca</i> <ul style="list-style-type: none"><li>Produced high-volume visual and narrative campaigns for educational and nonprofit organizations; 17.5M+ views, \$2M in fundraising through technical and creative production.</li></ul>   |  |
|                   | <b>EDUCATION</b><br><b>M.F.A. Creative Writing</b> , Florida Atlantic University 2015 — 2018<br><b>B.A. English Literature</b> , CUNY College of Staten Island 2010 — 2014   |  |
| CERTIFICATIONS    | Full-Stack Developer, Meta (2024) · UX Design, Google (2023) · Digital Marketing, Google (2023) · Project Management, Google (2023)  |  |