Anthony James Padavano

SENIOR EDUCATION PLATFORM ENGINEER (AI-NATIVE)

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LINKS

Portfolio · GitHub · agentic-titan · ORGANVM System

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

ORGANVM Eight-Organ System — 103-Repository Learning Infrastructure
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.

agentic-titan — Multi-Agent Orchestration & Eval Framework
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.

agent--claude-smith — Claude Agent SDK Reliability Layer
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.

Application Pipeline — CLI Pedagogical Orchestrator
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.

Portfolio — Performance-Grade Static Site
Astro 5 site with p5.js/D3.js visualization layers. Governed by a CI/CD "quality ratchet" that enforces strict validation and testing standards before deployment. Represents the scannable "Storefront" for deep systemic work.

EXPERIENCE

Independent Software Engineer & Education Platform Architect   2020 — Present
- **AI-Native Orchestration:** 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.
- **Platform Infrastructure:** Built CLI pipeline tools for scoring, drafting, and campaign orchestration using Python and YAML schema validation; optimized for enterprise-scale scannability.
- **LLM Reliability:** Developed multi-agent frameworks with the Claude Agent SDK (agentic-titan, 1,276 tests) featuring structured tool invocation and self-correction protocols.
- **Systems Governance:** Orchestrated 128 GitHub Actions workflows across 8 organizations, maintaining a validated dependency graph with zero back-edge violations.

Instructor — Composition, Writing & Complex Systems   2015 — Present
Miami Dade College, Keiser University, Nova Southeastern, FAU, Young Harris, Tarrant County, Broward, Palm Beach State
- 100+ courses across 8 institutions; 2,000+ students. Translating pedagogical requirements into accessible documentation and mentoring students in systemic technical rigor.

Digital Marketing Manager   2023 — 2024
Miami Dade College Foundation (nonprofit)
- Architected and led foundation website overhaul and campaign design, increasing donor engagement by 32% through data-driven technical execution.

Multimedia Specialist   2011 — 2020
AJP Media Arts — clients incl. Boca Ballet Theatre, Forward Funding, Arts in Boca
- Produced high-volume visual and narrative campaigns for educational and nonprofit organizations; 17.5M+ views, $2M in fundraising through technical and creative production.

EDUCATION

M.F.A. Creative Writing, Florida Atlantic University   2015 — 2018
B.A. English Literature, 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)