

# Anthony James Padavano

SOFTWARE ENGINEER, AI AGENTIC SEARCH

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## LINKS

[Portfolio](#) · [GitHub](#) · [agentic-titan](#) · [ORGANVM System](#)

## PROFILE

Independent software engineer and systems architect building production-grade AI orchestration and context-management systems. Creator and sole architect of a 103-repository ecosystem across 8 GitHub organizations governed by automated validation, 94 CI/CD pipelines, and 2,349+ tests. Specialist in architecting "Agentic Search" infrastructures that translate deep "Cathedral" corpuses into high-signal "Storefront" insights for collaborative environments. Expert in "solo production at institutional scale," utilizing an "AI-conductor" methodology to maintain complex, recursive architectures while providing scannable entry points. Focused on technical integrity, connected intelligence, and building the "operating system" for human-agent collaboration. Full-Stack Developer (Meta). 18 years professional experience. MFA Creative Writing. LGBTQ+.

## TECHNICAL SKILLS

TypeScript · Python · AI Search · Vector Databases · Claude Agent SDK · CLI Tooling · GitHub Actions · CI/CD · Node.js · Zod · pytest · Vitest · YAML/JSON Schema · React 18 · pnpm Monorepos · Express · Docker · Git · GCP / Terraform · WebSocket · Redis · Nginx · D3.js · p5.js

## SELECTED PROJECTS

### agentic-titan — Multi-Agent Orchestration & CLI Framework

TypeScript framework for orchestrating complex, multi-step engineering tasks across autonomous agents. Includes 18 development phases and 1,276 tests. Engineered for high-reliability tool invocation, task decomposition, and parallel context processing.

### ORGANVM Eight-Organ System — 103-Repository Knowledge Infrastructure

A unified technical corpus encompassing 21K code files and 3.6K tests across 8 organizations. Governed by a formal promotion state machine and automated dependency validation. Features 128 GitHub Actions workflows. A live demonstration of connected intelligence and "solo production at institutional scale."

### 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 navigate and interpret complex, multi-repo knowledge bases.

### Application Pipeline — Systems Analysis Tooling Suite

Python-based CLI suite for pipeline orchestration: 8-dimension scoring rubric and YAML-driven state machine. Automates intake, research, and synthesis tasks, translating deep technical evidence into scannable storefront materials for collaborative success.

### Classroom RPG Aetheria — AI-Native Learning Environment

Gamified education platform featuring dynamic AI quest generation. Hardened for production with XSS mitigation and robust failure handling. A prototype for how complex AI interactions can be documented and made resilient.

## EXPERIENCE

### Independent Software Engineer & Systems Architect

2020 — Present

- **AI-Native SDLC:** Designed a 103-repository system governed by automated validation and 94 CI/CD pipelines — human directs intent, AI generates volume, human reviews for correctness.
- **Infrastructure Reliability:** Built a corpus of 2,349+ tests across 94 active repositories, ensuring correctness in complex, cross-organizational developer tooling and agentic systems.
- **LLM System Integration:** Developed multi-agent frameworks using the Claude Agent SDK featuring structured tool invocation and self-correction protocols for autonomous engineering.
- **Governance at Scale:** Orchestrated 128 GitHub Actions workflows built on 18 reusable templates to maintain production reliability across 8 independent organizations.

### Instructor — 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 complex technical concepts into accessible documentation and mentoring junior developers in technical rigor.

### Digital Marketing Manager

2023 — 2024

*Miami Dade College Foundation (nonprofit)*

- Architected foundation website overhaul and campaign design, utilizing data analysis to drive a 32% increase in donor engagement.

### Multimedia Specialist

2011 — 2020

*AJP Media Arts — clients incl. Boca Ballet Theatre, Forward Funding, Arts in Boca*

- Produced high-volume visual and narrative campaigns; generated 17.5M+ views 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)