

# Anthony James Padavano

## SENIOR SOFTWARE ENGINEER (AGENTIC DATA PRODUCTS)

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### LINKS

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

### PROFILE

Independent engineer and systems architect building production-grade full-stack infrastructure, developer tooling, and multi-agent orchestration systems in TypeScript and Python. Architect of a 103-repository ecosystem governed by automated validation, 94 CI/CD pipelines, and 2,349+ tests. Specialist in "o→1 build" environments, architecting intelligent workflows that bridge the gap between deep data layers and agent-powered operational products. Expert in building reliable, steerable AI-native infrastructure at institutional scale through an "AI-conductor" methodology. Full-Stack Developer (Meta). 18 years professional experience. MFA Creative Writing, LGBTQ+.

### TECHNICAL SKILLS

TypeScript · Python · React 18 · LLM Integration · Vector Databases · Agentic Frameworks · CLI Tooling · GitHub Actions · CI/CD · Node.js · Zod · pytest · Vitest · YAML/JSON Schema · Docker · Git · pnpm Monorepos · 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 integration with agentic data products.

#### ORGANVM Eight-Organ System — 103-Repository Data 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 (43 edges). Features 128 GitHub Actions workflows built on 18 reusable templates. A live demonstration of full-stack AI-native orchestration at 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 ground AI reasoning in real-world data and operational workflows.

#### Application Pipeline — Systems Analysis Tooling Suite

Python-based CLI suite for pipeline orchestration: 8-dimension scoring rubric, campaign management, and YAML-driven state machine. Automates complex research and synthesis tasks through a shared library of infrastructure scripts.

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

Gamified education platform featuring dynamic AI quest generation. Hardened for production with XSS mitigation, robust failure handling with exponential backoff, and 100% pass rate across unit tests.

### EXPERIENCE

#### Independent Software Engineer & Systems Architect

2020 — Present

- AI-Native Orchestration:** Designed 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+ automated tests across 94 active repositories, ensuring correctness in complex, cross-organizational developer tooling and data products.
- Agentic System Design:** Developed multi-agent frameworks using the Claude Agent SDK (agentic-titan, 1,276 tests) featuring structured tool invocation and self-correction protocols for autonomous tasks.
- Systems Governance:** Orchestrated 128 GitHub Actions workflows using 18 reusable templates to maintain production reliability across 8 independent organizations.

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

#### Digital Marketing Manager & Narrative Strategist

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)