

# 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 infrastructure, internal developer platforms, 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 0→1 build environments and architecting agentic systems that ground AI in real operational data and decision-making workflows. Expert in "solo production at institutional scale," using specialized AI agent definitions as compositional instruments to bridge the gap between model capabilities and reliable engineering rigor. Full-Stack Developer (Meta). 18 years professional experience. LGBTQ+.

### TECHNICAL SKILLS

TypeScript · Python · React 18 · Node.js · distributed systems · LLMs · vector databases · agentic frameworks · CLI Tooling · GitHub Actions · CI/CD · Zod · pytest · Vitest · YAML/JSON Schema · 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 parallel context processing.

#### **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 AI-native analytics engineering 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 model reasoning in verifiable 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 intake, research, and synthesis tasks, translating deep technical evidence into scannable storefront materials.

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

Gamified education platform prototype featuring dynamic AI quest generation. Hardened for production with XSS mitigation and robust failure handling. Built to handle complex AI integration with production-grade reliability.

### 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+ tests across 94 active repositories, ensuring correctness in complex, cross-organizational data products and internal platforms.
- **Agentic Frameworks:** Developed multi-agent frameworks using the Claude Agent SDK (agentic-titan, 1,276 tests) 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 and architectural 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 and \$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)