D. Michael Piscitelli

Software Engineer, Full Stack & Platform

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SUMMARY

Full-stack software engineer who came up through 10 years of telecom design and team leadership, building internal automation tools before independently architecting a 44-service microservices platform. 1,600+ verified hours of AI-augmented development across 2,000 sessions, driven by a need to solve problems and ship. Looking to bring that momentum and builder mindset to a team where I can keep learning and contribute from day one.

TECHNICAL SKILLS

Languages	Python, JavaScript, TypeScript, Bash, SQL, GLSL/WGSL	**Frontend**	React, Next.js, Tailwind CSS, Three.js
Backend	Node.js, Flask, FastAPI, Express, REST, WebSocket	**Databases**	PostgreSQL, MongoDB, Redis, SQLite, Prisma ORM
Infrastructure	Docker, nginx, Linux, Git, CI/CD, Cloudflare	**Observability**	Grafana, Prometheus, Loki, structured logging
Architecture	Event-driven, microservices, multi-tenant, SaaS	**AI Tooling**	LLM integration, agent orchestration, RAG, Claude Code

EXPERIENCE

Full-Stack Software Engineer

2024 – Present

Hercules Platform (Independent)
Chicago, IL

Platform architecture: Designed and deployed 70+ Docker containers across 44 services with Redis pub/sub, WebSocket, and event-driven inter-service communication.

Authentication and access: Multi-tenant applications with role-based access control via Authelia, LDAP, and SSO with isolated data per user group.

Deployment and reliability: Automated pipelines with health checks, rollback, and zero-downtime deployment through Docker Compose orchestration.

Observability: Grafana dashboards, Loki log aggregation, Prometheus metrics, and automated alerting across all services.

Agent orchestration: Spec-driven framework with task-based routing, file ownership enforcement, and parallel team execution across multi-service projects.

Team Lead & Internal Tools Developer

2015 – Present

Precision Valley Communications (Dycom Industries)
Remote

Team leadership: Led 4 CAD designers, assigned project boundaries, performed expert-level Bentley MicroStation design, QC'd output. 500+ PON designs over 2 years.

Splice matrix generator: Google Apps Script tool that auto-generates fiber splice assignments from design data. Used on all 500+ designs, reducing 2-3 hours of manual work to minutes each. Estimated 1,000+ hours saved over 2 years.

Automation suite: QC tools that eliminated an entire manual review step, design calculators for cable counts and distances, and reporting automations. Saved the team 10-20 hours/week collectively. In production for 2+ years.

WiFi workflow organizer: React web application centralizing site survey data collection, BOM equipment selection, and standardized output formatting into a single workflow. Replaced scattered spreadsheets and inconsistent documentation.

PROJECTS

V11 Agent Orchestration Framework

Python, Bash, YAML, Claude Code CLI, hooks architecture

Agentic development framework with 89+ specialized agents, 48 skills, and 8 team formations. Parallel spawning, file ownership enforcement, heartbeat monitoring, and task-based coordination.

Claude Trader Pro

React, Express, FastAPI, PostgreSQL, WebSocket, OctoBot, Docker

AI-powered crypto trading platform built on a forked OctoBot engine with custom Claude/Gemini evaluator tentacles. Real-time market data via WebSocket, 12+ external data sources, paper trading, backtesting with confidence calibration, and a React dashboard for performance analytics.

Iolaus + Zeus, Dual-Interface AI Platform

Python, FastAPI, React, TypeScript, Pixi.js, xterm.js, WebSocket, PostgreSQL

Two-interface AI platform: Iolaus (voice/chat with Gemini, memory, knowledge graphs) and Zeus Terminal (multi-window web IDE with tmux persistence). Both orchestrate Claude CLI for agentic execution. Per-user isolated compute.

Manifold Visualizer

Three.js, WebGPU, GLSL, WGSL, Flask, Web Audio API

GPU-accelerated audio-reactive fractal engine. Volumetric raymarching, WebGPU compute shaders, 3-tier audio pipeline, adaptive tile rendering, and 8 generative journey presets. Live at manifold.herakles.dev.

EDUCATION

Syracuse University

2011 – 2015

Aerospace Engineering (120+ credits completed), Minor in Mathematics. Intro to Computer Science, Engineering Computational Tools, Physics I/II, Logic