

MICHAEL WILLIAM TRUPIA

Staff Software Engineer | AI Platform Architect | Technical Lead

michael@trupia.us

• (443) 579-6955

• York, PA

AI-enabled scientific platform engineering leader

Staff-level software engineer and technical leader specializing in AI-enabled scientific platforms. Experienced building production ELN/LIMS capabilities, managing engineers, leading customer-facing solution architecture, and delivering LLM-powered automation across enterprise scientific workflows.

Over 9 years at Sapio Sciences, progressed from Software Developer to Senior Core Platform Developer while remaining a hands-on contributor. Designs software used by 100+ organizations and 5,000+ scientific users, leads engineering teams, builds AI capabilities with modern LLM platforms, and supports customer success through technical demos, product expertise, and strategic solution design.

SELECTED IMPACT

\$2M+

revenue influenced

200+

applications integrated

5,000+

scientific users served

20+

major components delivered

3-4

releases annually

~200 hrs/wk

team capacity enabled

PRIMARY POSITIONING

Staff Software Engineer | AI Platform Architect | Technical Lead

CONTACT

michael@trupia.us
(443) 579-6955
York, PA
LinkedIn profile

KEY IMPACT

\$2M+
revenue influenced
100+
enterprise customers
5,000+
scientific users
200+
applications integrated
20+
major components
3-4
releases annually
~200 hrs/wk
team capacity enabled

CORE STACK

- Java
- Python
- SQL
- OpenAI
- Anthropic
- Amazon Bedrock
- RAG
- AI agents
- Tool calling
- MCP servers
- Docker
- Jenkins
- Maven
- Linux

MICHAEL WILLIAM TRUPIA

STAFF SOFTWARE ENGINEER | AI PLATFORM ARCHITECT | TECHNICAL LEAD

michael@trupia.us | (443) 579-6955 | York, PA | linkedin.com/in/michael-trupia-019478182

PROFESSIONAL SUMMARY

Staff-level software engineer and technical leader with 9 years of progressive experience building enterprise scientific software at Sapio Sciences. Combines hands-on Java/Python development, platform architecture, AI/LLM engineering, engineering management, customer-facing solution design, and product ownership.

Designs and delivers ELN/LIMS platform capabilities used by 100+ organizations and 5,000+ scientific users, including production AI systems using RAG, agents, tool calling, MCP servers, Amazon Bedrock, OpenAI, Anthropic, workflow automation, and enterprise integrations. Known as a company-wide product expert who bridges engineering, support, product, sales, leadership, and customers while continuing to write and review production code.

PROFESSIONAL EXPERIENCE

Sapio Sciences 2017 - Present
Senior Core Platform Developer / Engineering Manager / Technical Lead

Promoted through: Software Developer -> Senior Software Developer -> Core Platform Developer -> Senior Core Platform Developer

- Led development of enterprise ELN/LIMS platform capabilities used by 100+ organizations and 5,000+ scientific users, balancing architecture ownership with daily hands-on software development.
- Architected and delivered 20+ major platform components and contributed fixes, enhancements, and performance improvements across hundreds of existing modules.
- Designed MCP server and API capabilities that enable LLMs and AI agents to securely interact with enterprise scientific data and execute platform workflows.
- Built production AI features using OpenAI, Anthropic, Amazon Bedrock, RAG pipelines, agent workflows, tool-calling frameworks, and workflow automation.
- Led integration initiatives connecting 200+ scientific and business applications, enabling automated research workflows and cross-system data orchestration.
- Influenced \$2M+ in customer revenue by leading technical demonstrations, adapting platform capabilities to customer needs, supporting proof-of-concept work, and helping win and retain enterprise accounts.
- Managed and mentored a team of software engineers, including hiring interviews, onboarding, daily technical feedback, workload planning, PTO approvals, and semiannual plus annual performance reviews.

AI + PLATFORM FOCUS
LLM automation, enterprise informatics, product engineering, customer-facing architecture, release leadership, and production platform delivery.

TECHNICAL SKILLS

LANGUAGES

Java, Python, SQL, Bash, Docker scripting

AI / LLM

OpenAI, Anthropic, Amazon Bedrock, RAG, AI agents, tool calling, MCP servers, workflow automation, prompt engineering, AI-assisted development

ARCHITECTURE

ELN/LIMS platforms, API design, event-driven systems, message queues, enterprise integration, scientific informatics, platform engineering

DEVOPS / TOOLS

Docker, Linux, SSH, Jenkins, Maven, Gradle, Artifactory, RhodeCode/Git, Cursor, IntelliJ IDEA, PyCharm

BUSINESS / PRODUCT

Jira, Aha!, Confluence, Trello, Slack

LEADERSHIP

Engineering management, technical leadership, hiring, interviewing, onboarding, performance reviews, mentorship, release management, customer consulting, product demos

EDUCATION

York College of Pennsylvania
B.S. Computer Science, Cum Laude, 2017

ROLE FIT

Staff Engineer

AI Platform Architect

Technical Lead

Engineering Manager

MICHAEL WILLIAM TRUPIA

STAFF SOFTWARE ENGINEER | AI PLATFORM ARCHITECT | TECHNICAL LEAD

michael@trupia.us | (443) 579-6955 | York, PA | linkedin.com/in/michael-trupia-019478182

PROFESSIONAL EXPERIENCE CONTINUED

- Improved team delivery capacity by approximately 200 engineering hours per week through mentorship, process improvements, AI-assisted development practices, and practical engineering prioritization.
- Owned quarterly release execution for platform updates, coordinating testing, pull request reviews, quality gates, and release readiness across multiple product releases per year.
- Partnered directly with Support, Product Management, Sales, and Executive Leadership as a company-wide platform SME for customer escalations, product demos, technical discovery, and strategic roadmap input.
- Maintained high reliability for mission-critical scientific workflows by reviewing code quality, validating fixes, debugging customer issues, and ensuring owned releases were production-ready.
- Used Cursor and modern AI-assisted development daily to accelerate implementation while personally reviewing generated code for correctness, maintainability, security, and test coverage.

AI & PLATFORM LEADERSHIP

- Helped define Sapio's AI product direction by building practical LLM workflows for ELN/LIMS automation, research assistance, enterprise data access, and scientific tool orchestration.
- Built customer-facing AI capabilities currently used in production, including workflow automation, LLM-assisted data extraction, intelligent ELN/LIMS actions, RAG-backed knowledge retrieval, and AI agents.
- Developed MCP-based approaches that allow LLMs to interact with enterprise scientific systems while supporting secure, structured access to platform data.
- Contributed to broad company-wide adoption of AI-assisted development and automation practices while maintaining strong review standards for quality, correctness, and maintainability.

SELECTED ACHIEVEMENTS

- Created a bridge between customer-specific consulting and scalable platform engineering, turning repeated customer needs into reusable product capabilities.
- Became a trusted cross-functional resource for demos, customer escalations, support investigations, release readiness, product questions, and complex platform design decisions.
- Remained a top individual contributor while serving as a manager and technical lead, giving the organization senior architecture depth without losing implementation velocity.
- Supported customers ranging from small scientific teams to large enterprise deployments with up to 2,000 users.
- Helped protect customer relationships and win new business through rapid product adaptation, technical credibility, and high-quality customer-facing demonstrations.

TECHNICAL SKILLS

LANGUAGES

Java, Python, SQL, Bash, Docker scripting

AI / LLM

OpenAI, Anthropic, Amazon Bedrock, RAG, AI agents, tool calling, MCP servers, workflow automation, prompt engineering, AI-assisted development

ARCHITECTURE

ELN/LIMS platforms, API design, event-driven systems, message queues, enterprise integration, scientific informatics, platform engineering

DEVOPS / TOOLS

Docker, Linux, SSH, Jenkins, Maven, Gradle, Artifactory, RhodeCode/Git, Cursor, IntelliJ IDEA, PyCharm

BUSINESS / PRODUCT

Jira, Aha!, Confluence, Trello, Slack

LEADERSHIP

Engineering management, technical leadership, hiring, interviewing, onboarding, performance reviews, mentorship, release management, customer consulting, product demos

EDUCATION

York College of Pennsylvania
B.S. Computer Science, Cum Laude, 2017

ROLE FIT

- Staff Engineer
- AI Platform Architect
- Technical Lead
- Engineering Manager

MICHAEL WILLIAM TRUPIA

STAFF SOFTWARE ENGINEER | AI PLATFORM ARCHITECT | TECHNICAL LEAD

michael@trupia.us | (443) 579-6955 | York, PA | linkedin.com/in/michael-trupia-019478182

TECHNICAL SKILLS

Languages Java, Python, SQL, Bash, Docker scripting	AI / LLM OpenAI, Anthropic, Amazon Bedrock, RAG, AI agents, tool calling, MCP servers, workflow automation, prompt engineering, AI-assisted development
Architecture ELN/LIMS platforms, API design, event-driven systems, message queues, enterprise integration, scientific informatics, platform engineering	DevOps / Tools Docker, Linux, SSH, Jenkins, Maven, Gradle, Artifactory, RhodeCode/Git, Cursor, IntelliJ IDEA, PyCharm
Business / Product Tools Jira, Aha!, Confluence, Trello, Slack	Leadership Engineering management, technical leadership, hiring, interviewing, onboarding, performance reviews, mentorship, release management, customer consulting, product demonstrations

EDUCATION

York College of Pennsylvania
Bachelor of Science in Computer Science, Cum Laude - 2017

POSITIONING

Primary positioning: **Staff Software Engineer | AI Platform Architect | Technical Lead**

This positioning captures hands-on coding, architecture, AI platform work, engineering leadership, and customer-facing solution design without locking the profile into a purely management-focused track.