

Patrick Selamy

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Senior Software Engineer / Production AI, Backend Platforms, and Financial Systems

Summary

Senior software engineer focused on production AI systems, backend APIs, agentic workflows, retrieval, and observable platform services for enterprise and private-markets contexts. Former Meta and Google engineer with experience across regulated and high-scale environments, including Citi, Google Cloud Office of the CTO, Meta, ClearDATA, and Lumeris. Builds pragmatic AI systems that move beyond demos: Python/Java backend services, LLM tool use, evaluation harnesses, monitoring, reliability controls, and clear collaboration with business and product stakeholders.

Selected Production AI & Financial Platform Portfolio

Production AI Systems, Retrieval & Backend APIs

- Built Gemini-based software-engineering agents, SWE-bench-style evaluation harnesses, planning-vs-execution metrics, and vector-search benchmarks in Google Cloud Office of the CTO.
- Runs a live autonomous-agent fleet with MCP-style callable tools, reusable skills, CI-backed verification, traceable execution, credential boundaries, and human-review controls.
- Designs backend workflows where agents call APIs, documents, browser actions, and external systems through typed interfaces, with retries, failure recovery, scheduling, and operational guardrails.

Financial, Regulated & Enterprise Platform Fit

- Built backend, cloud, and regulated systems across Citi, Google, Meta, ClearDATA, and Lumeris, with emphasis on privacy, access control, reliability, maintainable APIs, and production tradeoffs.
- Strongest implementation depth is Python and Java, with AI-assisted TypeScript delivery and experience building product-platform services, developer tooling, and data-intensive workflows.
- Instrumented agent and platform systems with traces, metrics, logs, latency/error tracking, and CI gates so production behavior is visible and failures are recoverable.

Experience

Meta, Software Engineer

New York, NY | 2025 to 2026

- Expanded Facebook Marketplace third-party partner APIs and shipped-listing workflows for partner and seller-facing commerce.
- Shipped an ML-assisted listing flow that removed manual item-weight entry for shipped listings; predictions were evaluated against user-entered weights and carrier actuals, met the launch threshold near 80% accuracy, and lifted new-listing creation about 8%.

Google, Software Engineer

Pittsburgh / Austin / Remote / Atlanta | 2018 to 2025

- Worked across Google Shopping (Engineering Productivity), Google Play, Google Cloud Office of the CTO, and Internal Identity and Access Management.
- In Google Cloud Office of the CTO, built early agentic-coding systems: a Gemini-based software-engineering agent, SWE-bench eval harnesses, and planning-vs-execution metrics that guided funding and staffing; benchmarked vector-search frameworks at scale (ScaNN, FAISS, pgvector) to position GCP's AI competitively.
- In Google Play, helped build [Play Games Leagues](#) from the ground up on a five-engineer team and designed a configurable fuzzer for third-party Play APIs.
- Built Insider Risk systems for internal security, enterprise identity, and trust-sensitive access.

Earlier, Backend / Platform / Healthcare Engineering

Citi, Lumeris, ClearDATA, and others

- Built backend, platform, cloud, and healthcare systems in Python and Java across APIs, data workflows, and regulated environments.

Selected Systems & Public Work

- [Public agent-skills](#): reusable agent procedures, authoring patterns, and an MCP-vs-skills framework.
- [Operating Agent Fleets](#): an evidence-backed field guide for durable agent systems and bounded authority.
- [polymarket-insider-tracker](#): a Python tool that flags suspicious wallet activity on Polymarket prediction markets.
- AI instructor and speaker: led an [Ayiti AI](#) bootcamp session on MCP, AI-assisted coding, and deployment, and [addressed lawmakers on AI policy](#) at the NHAEON National Leadership Summit.

Technical Skills

Languages:	Python, Java, Kotlin, JavaScript/TypeScript, Hack, PHP, Bash, SQL
AI / Agent Systems:	AI agents, skills/playbooks, MCP-style tools, tool calling, evals, agent harnesses, autonomous coding loops, context engineering, RAG, model routing, secure tool execution, state management
Product & Systems:	API design, backend platforms, distributed systems, workflow orchestration, product metrics, experimentation, launch analysis, developer infrastructure
Security & Enterprise:	internal IAM, auth boundaries, insider-risk systems, credential brokering, trust-sensitive workflows, privacy/security review gates
Infrastructure:	Kubernetes, OpenTofu/Terraform, Argo CD, Docker, Linux, GitHub Actions, Actions Runner Controller, CI/CD, observability, multi-cloud
Data & Cloud:	PostgreSQL, Redis, Kafka, InfluxDB, Google Cloud, AWS