

Patrick Selamy

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Senior Software Engineer, AI/ML Infrastructure & Platform / Agentic Systems, Tools, and Evals

Summary

Software engineer focused on production AI infrastructure, agentic workflows, tool/skill abstractions, evaluation systems, and observable platform services. Former Meta and Google engineer who built early Gemini-based software-engineering agents, SWE-bench-style eval harnesses, vector-search benchmarks, and production platform systems. Runs a live autonomous-agent fleet with MCP-style tools, reusable skills, tracing, CI gates, and human-review controls.

Selected AI Infrastructure & Platform Portfolio

Agentic Systems, Tools & Retrieval

- Built MCP-style capability layers where agents invoke tools, APIs, document workflows, browser actions, and external-system actions through typed, reusable interfaces.
- Designed multi-step agent orchestration with stateful task decomposition, retries, failure recovery, tool routing, scheduling, and credential boundaries for real production workflows.
- In Google Cloud Office of the CTO, built Gemini-based software-engineering agents, SWE-bench evaluation harnesses, planning-vs-execution metrics, and vector-search benchmarks.

Reliability, Observability & Regulated Platform Fit

- Instrumented agent fleets with OpenTelemetry traces, metrics, and logs across tool calls, latency, cost, trajectories, and recovery behavior.
- Built backend, cloud, and regulated systems across Google, Meta, Citi, ClearDATA, and Lumeris, with emphasis on privacy, access controls, reliability, and maintainable APIs.
- Strongest implementation depth is Python and Java, with AI-assisted TypeScript delivery and experience building platform services, CI gates, and developer tooling.

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