

Patrick Selamy

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Senior Software Engineer / Customer Intelligence, Data Enrichment, and AI Platforms

Summary

Senior software engineer focused on customer-intelligence platforms, commerce workflows, backend infrastructure, and AI-enabled data systems. Former Meta and Google engineer with experience across Marketplace shipped-listing systems, partner APIs, product experimentation, enterprise data provenance, internal IAM, vector-search benchmarks, and AI-assisted software-engineering agents. Strong fit for OuterSignal's order-enrichment and identity/data-signal platform: APIs, data pipelines, privacy-aware enrichment, RAG/vector search, product dashboards, and early-stage ownership across backend, infrastructure, and product surfaces.

Selected Commerce, Data & AI Platform Portfolio

Commerce, Customer Signals & Product Workflows

- At Meta Marketplace, expanded 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; evaluated predictions against user-entered weights and carrier actuals, met the launch threshold near 80% accuracy, and lifted new-listing creation about 8%.
- Built product-growth systems across Facebook Marketplace, Facebook Dating, Google Play, and Google Shopping where user engagement, data quality, API reliability, and fast product iteration mattered directly.

AI Data Infrastructure, Retrieval & Operational Ownership

- In Google Cloud Office of the CTO, benchmarked vector-search frameworks including ScaNN, FAISS, and pgvector, and built Gemini-based software-engineering agents with SWE-bench evaluation harnesses.
- Built systems that aggregate context across documents, tasks, diffs, and code into shared knowledge surfaces, reducing duplicated work and improving operational visibility.
- Runs a live autonomous-agent fleet with MCP-style tools, reusable skills, workflow routing, tracing, CI gates, human-review controls, and operational recovery.
- Built backend, platform, cloud, healthcare, and regulated systems in Python and Java, with AI-assisted TypeScript delivery and experience around APIs, data workflows, privacy, access controls, and reliable operations.

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