Paul Shynin

Staff Backend & Platform Engineer

Greater Boston, MA · Open to Remote · paulshynin@gmail.com · paulshynin.com · linkedin.com/in/pshynin · github.com/pshynin

SUMMARY

Software engineer with 12+ years setting technical direction for and modernizing the production systems that revenue runs on, across commerce, security, data, and healthcare. I take on the hardest, most ambiguous core problems: choosing the platform an organization builds on for years, designing migrations that move revenue-critical systems without losing a dollar, and establishing the patterns and reliability standards other teams adopt. I lead through influence, not authority, tech-leading 3–8 engineers and aligning up to five cross-functional groups and external partners. Deepest in backend and integration architecture, with real reach into full-stack, platform/infra, and reliability, plus an active practice building agentic AI systems.

CORE SKILLS

Languages: Kotlin, Python, Java, TypeScript/JavaScript, Go, SQL

Backend: Spring Boot/WebFlux, hexagonal / ports-and-adapters, DDD, GraphQL (Netflix DGS), REST, gRPC, event-driven (SQS, Kafka), jOOQ

Full-stack: React, Next.js, Node.js, Contentful, Vercel, Playwright/Cypress, Nx monorepo

Cloud & Platform: AWS (IAM, SQS, S3, RDS, Lambda, Step Functions), Kubernetes, Helm, Argo CD / GitOps, Terraform, Scalr, Docker

Data & Integrations: PostgreSQL, MongoDB, DynamoDB, Redis, Elasticsearch, Commercetools, Stripe, Affirm, Avatax, Salesforce, SAP

Reliability: SLI/SLO definition, Datadog, Prometheus, OpenTelemetry, PagerDuty, Sentry, incident response, runbooks

AI / Agentic: LLM orchestration (LangGraph/CrewAI), RAG, vector search (Qdrant), local model serving (Ollama), AI-assisted dev

EXPERIENCE

Peloton Interactive

New York, NY / Remote

Senior Software Engineer, Commerce / Shop Platform — *Nov 2022 – Jul 2026*

Operated at staff scope: the team's go-to engineer for checkout, Commercetools integration, CI/CD, reliability (SLOs/incident response), and catalog; tech-led multiple cross-team initiatives over three years.

- **Made the technical case for our commerce platform:** as part of the architecture evaluation group, drove the comparison of Commercetools against BigCommerce, Shopify, and Magento and argued for Commercetools on Kotlin/JVM fit, data-model flexibility, and partnership terms; adopted org-wide. Owned the migration and checkout implementation strategy that followed.
- **Designed the strangler migration strategy** that de-risked Peloton's whole commerce modernization: a single stable checkout entrypoint plus a flag/A-B router with a kill switch, so the org could migrate funnel-by-funnel and revert in minutes instead of risking revenue on a big-bang cutover.
- **Architected and led the core cart-checkout service** (Kotlin/Spring WebFlux, hexagonal ports-and-adapters) integrating Commercetools, payments, tax, and order workflows, collapsing 6–8 planned funnel integrations into 1; tech-led 1 contractor → 6 engineers and coordinated 4 partner teams. Handles ~4K orders/week (~200K+/yr) at ~120 order placements/min peak; cut add-to-cart latency from ~5s to ~400ms.
- **Started and led a cross-team operational-excellence initiative** that cut P1–P2 incidents ~85% (~15–20/wk → ~2–3/wk): mapped domain ownership across owned endpoints, consolidated Datadog monitors with monitor-based SLOs, and made a per-monitor triage guide a hard acceptance criterion so any on-call engineer could self-mitigate. Set SLOs of 99.8% availability, 98.5% success-rate, and per-endpoint P95 latency; cut MTTR ~2 hr → ~15 min.
- **Delivered the catalog migration in-house, avoiding a ~$15M external contractor proposal:** the contractor proposed an Airflow + Java/Maven build (a stack the org didn't run); architected and shipped a Kotlin/Spring + jOOQ → Commercetools build with 2 engineers in ~2 sprints: ~1K SKUs across ~5 markets, with domain modeling and a custom bundle type. Still runs as the catalog data-integrity backbone.
- Launched the first migrated checkout channel (self-service warranties): **$500K+ in the first two months**, end-to-end checkout ~10–15s → under 2s, with staged rollout and rollback guardrails.
- **Led deprecation of a redundant catalog service** 4 engineering teams maintained daily (scope grew to ~10 teams): refactored the frontend onto cart-checkout and Commercetools directly (3 engineers), then deleted the service and its infra, removing a shared point of failure.
- **Established patterns adopted across commerce services:** the hexagonal integration model and observability/SLO standards (Datadog, OpenTelemetry, PagerDuty), plus triage guides and onboarding that raised org-wide fluency; led the CRA → Next.js migration and a Contentful/Vercel Page Builder (new-page spin-up days → ~10 min).

Software Engineer, Commerce (promoted to Senior) — *Sep 2019 – Nov 2022*

- Decomposed the catalog API monolith into Kotlin/Spring Boot + GraphQL (Netflix DGS) services on a proxy-to-legacy pattern, ~20x faster customer-facing catalog load, unblocking the orders, logistics, and cart initiatives.
- Drove early Kubernetes adoption: first to move a team-owned service onto K8s. Contributed to the initial Python-monolith decomposition (service led by another engineer) and owned the infrastructure/K8s side: authored service Terraform/Helm, wired production IAM, and standardized a reusable Argo CD / GitOps deploy pattern, then onboarded the team. Also contributed to introducing GraphQL (Netflix DGS) on the front end, the start of the org's GraphQL adoption.

- Raised front-end E2E test coverage from ~5% to ~80% by introducing Playwright (over the incumbent Cypress/Selenium stack) and bringing a previously-untested POS/Swift app to coverage; mentored engineers on test-design patterns (Page Object, Builder, Fluent, Facade, Strategy) and built a self-hosted dashboard to navigate test executions across repositories.
- Delivered features across a complex legacy estate: the high-scale Python commerce monolith (GraphQL federation, gRPC, Kafka/Avro, Elasticsearch) and a 30+ app Nx/React/TypeScript monorepo. Built and owned a ~2–5 min end-to-end CI/CD pipeline (build, parallel tests, ECR, ArgoCD GitOps) with fast rollback.

Stack: Kotlin, Python, TypeScript, Spring WebFlux, Netflix DGS, GraphQL, jOOQ, Redis, SQS, Step Functions, AWS, Terraform, Argo CD, Kubernetes, Commercetools, Next.js/React, Contentful, Datadog, OpenTelemetry.

Sophos | Senior Software Engineer, Email Security Jan 2019 – Sep 2019

- **Owned a phased TLS 1.0 → 1.2 migration** across critical email-security services, with compatibility validation, regression coverage, and a staged rollout that had no customer impact. Contributed to anti-impersonation/BEC detection (SPF/DKIM/DMARC).

Stack: Java, Groovy, Spring Boot, MongoDB, DynamoDB, AWS, Azure, GCP.

Hitachi Vantara | Software Engineer, Data Platform Mar 2017 – Jan 2019

- Built data-platform and integration workflows for enterprise customers; containerized the platform application into Docker and automated deployments with Puppet/Chef.

Stack: Java, Pentaho Data Integration (Kettle), Docker, Puppet/Chef, Jenkins, Cassandra, Hadoop.

AG Mednet | Software Engineer, Healthcare Feb 2016 – Mar 2017

- Built regulated clinical-trial software: a DICOM medical-image transfer platform and an adjudication workflow application for clinical-trial management.

Stack: Java, Spring/Hibernate, Angular, PostgreSQL, REST APIs, AWS.

SELECTED OPEN-SOURCE / PERSONAL PROJECTS

cortex | Multi-agent AI system: LLM orchestration (LangGraph/CrewAI), RAG over a Qdrant vector store, local model serving (Ollama), and validated structured outputs with encryption-at-rest. github.com/pshynin/cortex

agent-grid | Local control plane (Go) for coordinating parallel coding agents: a claim/stale/diff-risk policy engine over git. github.com/pshynin/agent-grid

EDUCATION & CERTIFICATIONS

- **B.S., Information Technology, magna cum laude** | University of Massachusetts Lowell | May 2021
- **Engineering Leadership Certificate** | Cornell University
- **Stanford University** | CS103: Mathematical Foundations of Computing (graduate-level coursework, A–)