

Pavel Rybintsev

Senior Software Engineer & Technical Lead — Distributed Systems, Blockchain Infrastructure

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SUMMARY

Senior software engineer and technical lead with 20+ years building and operating distributed systems across financial, infrastructure, and blockchain environments. Delivers production systems under real-world constraints — high availability, fault tolerance, regulatory compliance, and long-term maintainability — with deep focus on API development, event-driven architectures, infrastructure control planes, and large-scale data systems. Owns systems end-to-end from requirements through CI/CD and production operations, and leads engineering teams through design, documentation, testing, and delivery.

EXPERIENCE

Validation Cloud — Senior Backend Engineer 2022 – Present

- Designed and implemented RPC servers handling 300M daily requests with 99.99% availability
- Built a production Ethereum Staking-as-a-Service platform automating validator lifecycle end-to-end, including deposit handling, provisioning, monitoring, rewards indexing, and MEV integration
- Improved software testing and continuous integration workflows for backend services, increasing confidence in billing, staking, and compliance changes before production deployment
- Designed and implemented a real-time billing and usage metering system for RPC-as-a-Service serving tens of thousands of customers, including compute-unit accounting per method, free-tier enforcement, Stripe-based invoicing and subscriptions, and payment retry flows
- Developed wallet intelligence datasets powering blockchain analytics, including attribution of funding sources and geographic inference from on-chain activity

Voyager — Software Engineer / Tech Lead 2022

- Led extraction of accounting domain from a Node.js monolith into an event-driven Go microservice, isolating financial logic and introducing Kafka-based ingestion
- Re-architected transaction processing to an event-driven model with per-customer ordering guarantees via partitioning
- Introduced feature-flag-driven deployment workflows, enabling controlled rollouts and rapid rollback in a high-risk financial system

Infoblox — Staff Software Engineer

2019 – 2022

- Led software design for backend APIs and control-plane services translating user intent into DNS and DHCP infrastructure configuration
- Implemented targeted configuration rollout, applying changes only to affected nodes and reducing unnecessary reloads and service disruption
- Built versioned configuration delivery and forward-compatibility mechanisms that ship config ahead of binary upgrades, eliminating the multi-minute downtime window of the previous client-then-config rollout and sustaining 99.99% availability
- Developed backend services in Go on Kubernetes supporting hybrid cloud and on-prem DDI deployments
- Resolved production issues in distributed systems handling configuration propagation and state synchronization across infrastructure

Trax Image Recognition — Backend Team Lead

2015 – 2019

- Architected and led development of a distributed image processing pipeline handling ingestion, recognition, stitching, deduplication, human review, and reporting
- Designed dependency-aware workflow execution system ensuring correct sequencing of pipeline stages
- Implemented coordination mechanisms using database-level atomic primitives to guarantee correctness under concurrency
- Built IoT-based image capture system with Raspberry Pi devices and in-store cameras, replacing manual data collection
- Designed edge-to-cloud data flow handling unreliable connectivity, device failures, and large-scale ingestion
- Led backend engineers across cloud and edge systems, using agile delivery practices to ship high-throughput production systems

Whitebay Technologies — Software Engineer

2012 – 2015

- Built risk management and monitoring systems for high-frequency trading infrastructure, including trade recording and enforcement of loss limits
 - Contributed to exchange-adjacent trading systems with performance monitoring and safeguards
 - Implemented market-aware constraints using external data sources (e.g., dividend event handling)
 - Developed distributed compute systems for research and trading strategy analysis
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SKILLS

Architecture & Distributed Systems

Event-driven systems, Kafka, high-availability design, fault tolerance, service decomposition, workflow orchestration, software design patterns

Blockchain Infrastructure

Ethereum nodes and RPC, staking systems, validators, EigenLayer, SSV, on-chain data processing, billing and metering

Backend & API Development

Go, Python, C#, C/C++, API development, backend services, microservices, PostgreSQL, ClickHouse, Redis

Infrastructure & Delivery

Kubernetes, AWS, Docker, continuous integration, production operations, monitoring, deployment automation

Engineering Leadership & Process

Lead software developer responsibilities, team leadership, requirements analysis, technical documentation, software testing, agile methodologies, code review

EDUCATION

B.Sc. in Computer Science

Academic College of Tel Aviv-Yafo — 2015