

# Arkadiy Pechnikov

## Senior Python Backend Engineer | Distributed Systems & FinTech Infrastructure

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### PROFESSIONAL SUMMARY

Senior Python Backend Engineer with 8+ years of production experience building high-load distributed systems for fintech and crypto infrastructure. Architected microservices ecosystem processing 200 background jobs/sec serving 10,000 users at 99% uptime. Built SDK generation pipeline automating integration with 20+ DeFi protocols. Experienced in workflow orchestration (Temporal.io), container orchestration (Kubernetes, Docker), and full observability stacks (Grafana, Victoria Metrics, Loki). Engineered Rust-based POW solver achieving 20x performance improvement over browser baseline.

### TECHNICAL SKILLS

**Languages:** Python (8 years), Rust (2 years), Go, JavaScript/TypeScript, SQL

**Backend & Frameworks:** FastAPI, Django, aiohttp, asyncio, Celery, Temporal.io, Pydantic, SQLAlchemy

**Databases:** PostgreSQL, MySQL, MongoDB, ClickHouse, Redis, TimescaleDB, Elasticsearch

**Cloud & DevOps:** Kubernetes, Docker, FluxCD, GitHub Actions, CI/CD, Helm, Cloudflare, MinIO

**Observability:** Grafana, Victoria Metrics, Loki, Sentry, Prometheus

**Blockchain & DeFi:** Web3.py, ethers.js, 20+ DeFi protocols (Uniswap, 1Inch, Stargate, LayerZero), TON SDK

### PROFESSIONAL EXPERIENCE

#### Head of IT Infrastructure

Fenixwb — Wildberries slot booking service | Oct 2024 — Sep 2025 | Remote

- Migrated legacy monolith to Temporal.io workflow orchestration, designing ~10 microservices integrated with Elasticsearch and MySQL
- Scaled system to 200 background jobs/sec serving 10,000 users with 99% uptime
- Engineered Rust-based POW solver achieving 0.1s execution vs 2s browser baseline (20x improvement)
- Recruited and managed 2 engineers (backend + DevOps), owned architecture decisions and task allocation
- Diagnosed critical throughput bottleneck — proved hypothesis through systematic load testing and resolved the issue
- Deployed full observability stack: Grafana + Victoria Metrics + Loki with custom dashboards and alerting

**Tech:** Rust, Python, Temporal.io, Elasticsearch, MySQL, Grafana, Victoria Metrics, Loki, Docker, K8s

#### CTO / Senior Python Developer

Cryptosoftware — Crypto trading infrastructure platform | May 2023 — Nov 2024 | Remote (Dubai-based)

- Architected SDK generation pipeline: mitmproxy traffic capture → OpenAPI spec → auto-generated Python SDK for undocumented exchange APIs
- Delivered 20+ DeFi protocol integrations (Uniswap, 1Inch, Stargate, LayerZero) as reusable library
- Built core async Python library for DeFi interactions handling concurrent operations across multiple chains
- Implemented code review process, CI/CD pipelines, and structured task management for team of 6

**Tech:** Python, Web3.py, mitmproxy, OpenAPI, DeFi, asyncio, Docker

#### Middle+ Python Developer / Tech Lead

Vitrinagram — Telegram MiniApp e-commerce platform | Nov 2022 — Aug 2024 | Remote (Moscow-based)

- Built Telegram MiniApp backends benchmarked for 1,000+ concurrent users per store with horizontal scaling
- Designed scalable bot architecture with Celery task queue + Kubernetes orchestration
- Implemented automated subdomain provisioning pipeline: FluxCD + GitHub Actions + Cloudflare API
- Developed S3-compatible proxy API using MinIO for tenant-isolated file storage
- Configured full observability: Grafana + Victoria Metrics + Loki + Sentry with per-tenant dashboards

**Tech:** FastAPI, Kubernetes, Celery, FluxCD, Grafana, Victoria Metrics, Loki, Sentry, MinIO, Cloudflare

#### Python Backend Developer / Lead

Freelance — Crypto infrastructure projects | Jan 2018 — Present

- Built wallet management system handling 2,000+ EVM wallets with 5,000+ daily transactions, zero manual intervention
- Created TradingView parser extracting 260M+ candlesticks (crypto + 20 years forex) for ML datasets
- Led team of 3 Go developers building CEX arbitrage bot with sub-100ms execution latency
- Developed copy-trading system with horizontally scalable architecture supporting unlimited subscriber wallets
- Built USDT-TON payment gateway with instant confirmation for crypto gaming platform

**Tech:** Python, Go, JS/TS, Web3.py, ethers.js, nautilus-trader, PostgreSQL, Redis, asyncio

## **PROFESSIONAL DEVELOPMENT**

**Machine Learning Specialization** — Stanford University (via Coursera) (2026)

**Reinforcement Learning for Trading Strategies** — New York Institute of Finance (2026)

**Using Machine Learning in Trading and Finance** — New York Institute of Finance (2026)

## **LANGUAGES**

Russian: Native | English: B1+ (strong reading/writing, conversational spoken)