

Danil Rybalkin

Software Engineer | Backend, Full Stack, Systems, AI/LLM, Payments

Remote | Russia | github.com/vrlda | English: full professional / near-native | Russian: native

SUMMARY

Generalist software engineer with around 10 years across software development, infrastructure, networking, payments, AI systems and business operations. Strong in backend and full-stack product development, distributed and networked systems, financial workflows, automation and applied LLM products. Comfortable moving between Go, Rust, TypeScript/Node.js, Python/Django, PHP, React, PostgreSQL and Redis, choosing the stack based on the problem rather than a fixed specialization. Repeatedly takes ambiguous ideas from architecture to working, deployed products and owns implementation end to end.

CORE SKILLS

Languages: Go, Rust, TypeScript, JavaScript, Python, PHP, C

Backend / Web: Node.js, NestJS, Express, Django, FastAPI, React, Next.js, REST APIs, WebSockets, webhooks

Data / Infra: PostgreSQL, Redis, Redis Streams, Celery, SQL, Docker, Linux, Nginx, Git

Systems / Networking: TCP, UDP, TLS, DNS, P2P, routing, relays, multi-hop networking, distributed systems, concurrency, cryptography

AI / LLM: AI agents, multi-agent orchestration, RAG, embeddings, memory, tool calling, MCP, OpenRouter, Ollama, local models, pgvector

Payments: BTC, EVM, Solana, TRON, TON, HD wallets, chain scanners, confirmations, sweeping, gas/prefund management, signed webhooks, idempotency

COMMERCIAL EXPERIENCE

Fleets s.r.o. - Full-Stack Engineer / CRM Owner | 2025-Present

- Built and own a Django-based fleet-management and driver-payout platform for a Slovak transportation business.
- Automated Uber/Bolt/courier CSV ingestion, driver matching, commissions, cash-on-hand, rent/debt carry-over, bank fees, partner commissions and net-profit reporting.
- Implemented Celery/Redis background processing, PostgreSQL persistence, SEPA payment XML generation, monthly PDF invoices, Telegram bots, multilingual UI and Linux production deployment.

TapJets LLC - Charter Sales & Client Operations / Flight Operations | 2022-2023

- Managed private-charter customer and flight workflows across US and European markets, including aircraft sourcing, client communication, bookings, vendors and live flight coordination.
- Worked entirely in English with US clients, operators, airport crews and partners in a high-value, timing-sensitive environment.

Nano-City - Web Developer | 2022

- Built and maintained an ecommerce website, including frontend, backend, catalog and administrative functionality, and improved performance and user experience.

Farmel - Web Developer & Marketing Lead | 2022

- Rebuilt the company website and worked across frontend/backend development, integrations, SEO, technical operations and digital marketing.

Independent / Freelance - Full-Stack / Web Developer & Digital Marketing | 2018-2022

- Built websites, ecommerce projects and internal web systems for small businesses using JavaScript/TypeScript, PHP, Python and other tools depending on the project.
- Also handled UI/UX, SEO, search advertising, campaign optimization and client-facing delivery.

Pegas Telecom - ISP Technical Support & Subscriber Operations | 2017-2021

- Handled ISP troubleshooting, subscriber operations, connectivity incidents and network-related technical support.

SELECTED ENGINEERING PROJECTS

Vulta - Non-custodial Crypto Payments

- Designed and built a Go/Fiber + Next.js payment platform where merchants receive crypto/card settlement directly to their own wallets.
- Built payment links, checkout flows, wallet pools, provider routing/failover, on-chain detection, subscriptions, teams, referrals and HMAC-signed webhooks.
- Supports BTC, EVM, Solana, TRON and TON with PostgreSQL, Redis, Docker and Nginx. Reported peak MRR around US\$1.2k and around US\$9k all-time.

AurumPay / Crypto Payment Gateway - Multi-chain Payments Core

- Built a custodial Go crypto gateway with per-payment addresses, blockchain scanners, confirmation state machines, webhook delivery and automated sweeping.
- Implemented HD-wallet derivation, encrypted master seeds, gas/prefund management, TRON energy handling and sweep recovery across BTC, EVM, Solana, TRON and TON.

Apollo / AgentHQ - AI Company Framework

- Built a Go + React platform for AI agents with departments, tasks, schedules, memory, policies, approvals, tools and manager/worker delegation.
- Integrated OpenRouter/Ollama-compatible providers, MCP servers, workspace and shell tools, web research, subagents, embeddings, audit flows, guardrails and background execution.

UMC / UMP - Decentralized Network Runtime

- Designed and implemented a Rust networking runtime/protocol with cryptographic identities, secure sessions, TCP/TLS/UDP/LAN transports, routing, relays, multi-hop paths and store-and-forward delivery.
- Implemented Ed25519/X25519 identity and handshake primitives, ChaCha20-Poly1305 protection, key updates/resumption, onion-wrapped route transitions, abuse controls, SDKs/C ABI and 1500+ automated tests.

Netglass - macOS Network Monitor

- Built a process-aware macOS network monitor with live flows, DNS, packet capture, PCAP/PCAPNG export, TCP stream reassembly, protocol decoding, trust/signing inspection, security scanning, SQLite history, GeolIP and CLI.
- Includes 218 fully offline automated tests.

Watchtower - Monitoring and Incident Response

- Built a Rust agent and control plane covering host health, systemd/journald/procs, security and network probes, durable JSONL spooling, incident correlation, SQLite/Postgres, web UI, Telegram/webhooks and SDKs for Rust, Python, Node.js and Go.

Super-Inference - Rust/Metal LLM Inference Research

- Built an experimental Rust inference runtime for Apple Silicon with Metal backends and kernels, GGUF/Safetensors support, quantized matvec paths, model-state/runtime probes and constrained-memory inference research.

VarPN / EasyXray - Cross-platform VPN Client

- Built a Flutter VPN client for macOS and iOS with Xray, utun/PacketTunnel integration, Tun2Socks, routing/DNS management, failover, watchdog recovery, traffic diagnostics and VLESS/VMess/Trojan/Shadowsocks support.

Farby PRO - Process-control CRM

- Built a React/TypeScript + Express/PostgreSQL CRM with ownership, next-action enforcement, guarded stage transitions, technical testing workflows, order lifecycle, stale-work detection, notifications, RBAC, audit history and website/email intake integrations.

Ideas - AI Opportunity Research Pipeline

- Built an async Python pipeline that ingests public complaint signals, filters relevance, extracts structured problems, embeds/clusters them, researches competition and ranks opportunities.
- Used Redis Streams, PostgreSQL/pgvector and FastAPI with evidence-based scoring across pain, engagement, frequency, authority, competition and monetization.

ENGINEERING STRENGTHS

- Zero-to-one product engineering and end-to-end ownership
- Backend architecture, APIs, state machines, queues/workers and data modeling
- Financial correctness, ledgers, idempotency and operational workflows
- Networking, protocol design, security and distributed systems
- Applied AI systems, agent orchestration, memory, tools and retrieval
- Production operations across Linux, Docker, Nginx, PostgreSQL and Redis
- Strong client communication and business context, including fully English-speaking work environments

EDUCATION

Bachelor's degree in Business Informatics - Moscow, 2026

Additional university study in Economics / Enterprise Management - not completed

Earlier university study in Design - not completed

LANGUAGES

Russian: Native

English: Full professional / near-native proficiency. Extensive client-facing and operational work with US and English-speaking customers and partners.

PORTFOLIO

GitHub: <https://github.com/vrlda>