Alexander Vanzha

Lead Software Engineer (Agentic, Fintech)

CONTACTS

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SUMMARY

Passionate software engineer with 6+ years of experience in high-load fintech systems. Scaled a national QR payment system for 50x transaction growth(1, 2) and led the architectural design and development of a new national Fast Payment System from concept to launch(1). Specializing in system analysis, high-performance APIs, and building resilient payment infrastructure for mission-critical environments.

Ex-manual Go developer with 5 years of experience. Nowadays agentic software engineer (any language or stack)

SKILLS

- **Systems analysis** of business requirements into specifications for development: processes, data models, API and integration contracts
- Designing **modular systems** deployable as **microservices** or a **modular monolith**, built on **DDD** or **layered architecture** with **event sourcing**, **CQRS** and **saga** patterns
- Agentic development on **any** popular programming languages, preferring Go or Rust for new projects
- Hands-on development mainly in **Go** and **PL/pgSQL**, but also in **Rust**, **Python**, **TypeScript**
- API design and development with **OpenAPI 3**, **Protobuf** and **SOAP**
- Building asynchronous data flows through **RabbitMQ** and **Kafka**
- Process and domain modeling in **UML** and **Mermaid**
- Data analysis with **SQL (PostgreSQL)** and **Python**
- Quality assurance through **unit, integration, e2e and performance tests**
- Containerized deployment with **Docker** and **Nomad** via **GitLab CI**
- Setting up monitoring and alerting with **Prometheus** and **Grafana**
- Writing and maintaining technical documentation in **Markdown**
- Speeding up development, analysis and documentation with **agentic engineering**: multi-agent workflows, custom skills, review pipeline, **aTDD** (agentic test driven development)

EXPERIENCE

Lead Software Engineer, Go Nov 2024 – Present

Interbank Processing Center — Bishkek, Kyrgyzstan

- Led architectural design and development of Kyrgyzstan's national Fast Payment System, enabling advanced real-time transfers between domestic and international payment providers such as Alipay.
- Designed and documented the public API for the Fast Payment System (OpenAPI 3, Mermaid), adopted nationwide as the single integration standard for domestic payment providers.
- Built the double-entry ledger powering transaction processing in ELQR and FPS. Supports multi-leg postings and batch processing, implemented in Go and PL/pgSQL and covered by unit and integration tests enforcing balance invariants.
- Scaled ELQR, Kyrgyzstan's national QR payment processor, from 100K to 5M transactions/day (50x) by reworking concurrency patterns in Go services around a saga-based transaction flow and by moving accounting into the new ledger.
- Established system-wide observability with Prometheus and Grafana, replacing manual incident reporting with automated detection in under 2 seconds.

- Mentored 2 junior and 2 mid-level engineers on Go best practices and system design through code review and pairing.

Skills: Go, TypeScript, PostgreSQL, PL/pgSQL, OpenAPI 3, git, GitLab, UML, md, Prometheus, Grafana, Docker, event sourcing, cqrs, modular monolith, saga, unit and integration testing, custom observability solutions, SOAP, Swift MT, ISO 20022, aTDD, system analysis

Software Engineer, Go
Apr 2023 – Oct 2024

Interbank Processing Center — Bishkek, Kyrgyzstan

- Maintained back-end services of ELQR, Elcard Mobile, and Payment Gateway (Go, PostgreSQL, Docker, Nomad).
- Improved internal admin panels (TypeScript, React, PHP).
- Built internal tools for QR parsing and SOAP API clients for integration with card systems.

Tools: Go, PHP, TypeScript, React, PostgreSQL, git, SOAP, OpenAPI 3, HTML, CSS, JavaScript, GitLab, Docker, Nomad, unit and integration testing

Developer
Feb 2021 – May 2022

NDA — Remote

- Developed and maintained business logic and worked with the database.
- Maintained production systems.

Skills: English, Golang, PostgreSQL, git, Docker, Linux, unit and integration testing

Author
June 2021 – Feb 2022

Hyperskill

- Created educational materials for Go language.
- Wrote tests in python for validating user input.

Skills: English, Go, Python

Developer, Go
May 2020 – Jan 2021

NDA — Remote

- Maintained backend applications.
- Implemented new business features.

Skills: HTML, CSS, JavaScript, PHP, Go, Python, PostgreSQL, git

EDUCATION

B.Sc. in Physics
2016 – 2020

Lobachevsky State University of Nizhny Novgorod (UNN)

LANGUAGES

- Russian — native
- English — 8.5 Reading, 8.5 Listening, 6.5 Writing, 5.5 Speaking