

Aliaksei Novikau

Senior / Staff Backend Engineer | Go · Distributed Systems · High-Load Systems

Poland

anovikau@gmail.com

+48 789 732 268

LinkedIn: <http://linkedin.com/in/aliaksei-novikau>

GitHub: <http://github.com/guntenbein>

PROFESSIONAL SUMMARY

Senior/Staff-level backend engineer and hands-on technical leader with 20+ years in software development and 8+ years of Go. Specializing in distributed and high-load systems, backend architecture, performance optimization, reliability, and cloud-native platforms. Currently building large-scale production systems at Viber and leading the technical development of Paperspell. Experienced in architecture and production coding, scaling performance-critical services, designing APIs and distributed workflows, and leading engineering initiatives and teams.

CORE EXPERTISE

- Distributed Systems Architecture
 - High-Load & Low-Latency Systems
 - Go Backend Engineering
 - Performance Optimization & Reliability
 - Cloud-Native Architecture (AWS, GCP, Kubernetes)
 - Technical Leadership & Engineering Delivery
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SKILLS

Languages: Go (8+ years), Java, Python, C++

Distributed Systems: gRPC, RabbitMQ, Temporal, OpenRTB

Databases & Storage: PostgreSQL, Redis, Aerospike, Elasticsearch, Firestore

Cloud & Infrastructure: AWS, GCP, Kubernetes, Docker, Nomad, Terraform

Observability: Datadog, Prometheus, Grafana

AI & Data Processing: Vertex AI, Document AI

EXPERIENCE

Viber (Rakuten Viber), Poland

Senior Backend Engineer (Go), Ads Platform | 2025 – Present

- Develop and operate a high-load production advertising platform handling up to 35K incoming requests per second and up to 250K outbound RPC requests per second, with strict p99 latency requirements.
- Optimized request-processing paths in Go, which helped reduce tail latency by around 15–25% during peak traffic.
- Introduced resiliency patterns such as circuit breakers, timeout handling, and fail-safe logic to improve external integration stability.
- Designed and shipped an extensible orchestration layer and pricing optimization agent, increasing advertising revenue by approximately 3% while enabling additional internal and third-party agents.
- Optimized low-latency data access using Aerospike and Redis in performance-critical paths.

Tech stack: Go, OpenRTB 2.5/2.6, Aerospike, Redis, GCP, Kubernetes, Datadog

Paperspell, Poland

CTO & Co-Founder | 2023 – Present

- Co-founded Paperspell and own its technical direction and engineering execution, leading a small early-stage team while remaining the primary hands-on backend engineer.
- Responsible for engineering planning and delivery, hiring, onboarding, mentoring, and team development.
- Designed and built the Go/gRPC backend architecture on GCP, including bidirectional mobile-to-cloud synchronization with conflict resolution and integrations with AI services.
- Integrated AI pipelines (Google Document AI, Gen AI) for OCR, classification, summarization, and structured extraction.
- Set up infrastructure as code with Terraform and configured CI/CD pipelines for backend services.
- Optimized cloud architecture to reduce operational costs.

Tech stack: Go, gRPC, GCP, Cloud Run, Firestore, SQLite, Terraform, Gen AI, Document AI

Orca Security, Israel

Senior Go Engineer (R&D) | 2022 – 2025

- Worked on a distributed secret detection engine integrated into a cloud security platform, scanning petabyte-scale environments.
- Improved detection accuracy by reducing false positives through heuristic tuning and pattern optimization.
- Leveraged Go concurrency to parallelize scanning workflows and significantly increase throughput.
- Designed and implemented a Kubernetes operator for scalable file scanning with automated workload distribution.
- Also focused on optimizing cloud resource usage across AWS and GCP to control infrastructure costs.
- Technically led a team of 3–5 engineers and participated in cross-team architectural reviews.

Tech stack: Go, Python, Kubernetes, AWS, GCP, gRPC

Spiral Scout

Lead Go Engineer | 2018 – 2022

- Led backend development of distributed Go-based services across multiple production platforms.
- Took part in migration from monolith to microservices, designing scalable communication patterns.
- Implemented distributed workflows using RabbitMQ and Temporal.
- Designed concurrent processing pipelines for video encoding services using FFmpeg.
- Introduced tracing, metrics, structured logging, and CI/CD pipelines.
- Led engineering teams of 3–7 people, owning planning and delivery, mentoring, performance reviews, hiring, onboarding, and team composition decisions.

Tech stack: Go, gRPC, PostgreSQL, Elasticsearch, Temporal, RabbitMQ, AWS (EC2, S3, AMI), Docker, Nomad, FFmpeg

IBA Group - Go / Java Engineer | 2015–2018

Developed backend and distributed systems in Go and Java across banking, cloud, and cross-platform environments.

Earlier Experience - Senior Java / C++ Engineer | 2003–2015

Built enterprise backend and high-availability systems across banking and large corporate environments.

EDUCATION

Belarusian State University of Informatics and Radioelectronics - Engineer of Automatic Control Systems
Ph.D. in Informatics (Software Engineering), Università degli Studi di Trento (unfinished)

PUBLICATIONS

Author of technical blog posts on backend development and Go (Spiral Scout, 2018–2021).

<https://spiralscout.com/blog/author/aliakseinovikau>

LANGUAGES

English B2

Italian C1

Polish B1

Russian C2