

Daniil Mikhaylov

Software Engineer

Contact

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Summary

Software Engineer with 4+ years of commercial experience primarily building distributed backend systems, real-time services and production-grade integrations. Strong hands-on experience with Go, C++ and TypeScript, with practical experience in PostgreSQL, Kafka, Docker, CI/CD and Kubernetes. Experienced in taking backend features through design, implementation, staging validation, testing, deployment support, and production troubleshooting. I'm also experienced in working with stakeholders to translate business needs into clear software requirements.

Experienced in building business-critical systems with a focus on scalability, availability, and reliability. Interested in platform engineering and resilient service design.

Technical Skills

Languages: Go, TypeScript, and C++; familiar with Python and Lua

Backend: Microservices, REST APIs, gRPC, event-driven architecture, distributed systems, service integrations

Data & Messaging: PostgreSQL, S3, Kafka, MQTT; familiar RabbitMQ messaging patterns

Infrastructure: Kubernetes, Docker, Linux, deployment support, CI/CD collaboration

Observability & Quality: OpenTelemetry, Grafana, JMeter, profiling, testing, code review, production troubleshooting

Engineering Practices: System design, scalability, availability, resilience, ACID, TDD, SOLID, Agile

Experience

Software Engineer

Communication & Radionavigation (C&R) | March 2024 - Present

Develop Go and C++ backend services for a highly-modular digital twin platform used for operational planning, optimization, and decision support. Build event-driven data processing components and service integrations for telemetry ingestion, validation, domain computation, and downstream analytics.

Design and implement third-party API integrations, contribute to architecture and implementation of distributed services processing high volumes of domain data. Collaborate with engineers and stakeholders to translate ambiguous operational requirements into backend features delivered to production.

Participate in deployment and release activities using Docker and Kubernetes, including staging validation, production checks, configuration verification, and investigation of deployment-related issues.

Improve service reliability and maintainability by refactoring and redesigning modules and clarifying boundaries. Use observability and performance analysis to debug issues, reason about bottlenecks, and improve production readiness.

Design, build, and maintain internal microservice platforms (EdTech, CRM), developing gRPC-based service communication and OpenTelemetry-based observability to streamline work tracking for vessel-service engineers and new hires, while providing leadership with visibility into workload management and resource utilization.

Impact: contributed to 2 successful pilot launches; supported optimization workflows associated with approximately 8.5% fuel savings; improved stability and maintainability of core backend modules.

By contributing to design of internal tools established new workflows for both leadership and engineers, significantly improving resource utilization and operational efficiency.

Technologies:

*Go, C++, Node.js (NestJS, TypeScript), Python,
PostgreSQL;
Kafka, MQTT;
Gin, Boost, Boost.Asio;
Docker, Kubernetes*

Backend Engineer

Comfortel | June 2022 - March 2024

Built and maintained backend services for smart home and video monitoring platforms with soft real-time processing and customer-facing functionality. Developed TypeScript/Node.js, and C++ services integrating IPC/NVR devices, internal services, external vendor SDKs, and data storage layers. Implemented new product features that span across domains, contributed to feature design, estimated delivery effort, and participated in code reviews.

Worked with asynchronous event processing and Kafka-based pipelines for surveillance events, metadata, and service-to-service communication. Maintained microservice-based systems backed by PostgreSQL and MongoDB, improving reliability.

Reduced technical debt through major legacy refactoring initiatives, making services easier to test, extend, and debug. Improved backend quality through stronger error handling, targeted tests and profiling.

Impact: delivered several major refactoring initiatives; reduced recurring engineering effort on legacy modules; improved reliability of real-time monitoring services.

Technologies:

TypeScript, Node.js, C++;

Kafka, MongoDB, PostgreSQL;

Drogon Framework, IPC/NVR SDKs.

Education

MSc in Software Engineering - State University of Telecommunications, Saint Petersburg, Russia | 2024

BSc in Computer Science and Engineering - Baltic State Technological University, Saint Petersburg, Russia | 2022

Languages

Russian - Native | English - Advanced