

Aleksandr Sulimov

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Professional Profile

Senior Backend Engineer with 7+ years of experience in Python and distributed systems. Designed auth and messaging infrastructure serving millions of users at Kiwi.com, with a track record in reliability engineering, performance optimization, and cross-team technical leadership. Author of Repid, an open-source async task queue framework. PyCon speaker.

Open Source

Repid - <https://github.com/aleksul/repid>

2021-10 - present

Asyncio-native Python task queue framework with built-in AsyncAPI 3.0 schema generation

- Created and maintain open-source framework supporting 6 brokers (RabbitMQ, Redis, SQS, Kafka, NATS, GCP Pub/Sub); 5K+ monthly PyPI downloads.
- Deployed in production at Kiwi.com, processing 5M+ tasks daily.
- Achieves ~23x higher throughput than Celery on I/O-bound workloads (47.8K vs 2.1K msg/s; 8 workers, 2,000 concurrent tasks, RabbitMQ).
- Dependency injection, Pydantic argument validation, and a drop-in TestClient for broker-free unit testing.

Experience

Senior Software Engineer, Kiwi.com

2022-06 - present

- Redesigned authentication backend through end-to-end system design and API design overhaul, cutting auth response latency by 40ms across every page request - estimated €3.6M annual revenue impact based on industry research linking latency to conversion rates at Kiwi's scale.
- Maintained 99.99999% error rate SLO and 99.995%+ uptime SLO across 600+ production deployments - protecting an estimated €1.4M+ in annual revenue, given ~€160K cost per hour of auth downtime at Kiwi's scale.
- Reduced scraping and account takeover attacks by 90% by applying security best practices, mitigating GDPR fine exposure comparable to the €400K regulatory penalty levied against Transavia in 2021 for a similar breach.
- Championed reliability engineering across services, reducing weekly error rate 20x through systematic root cause analysis and performance optimization.
- Introduced optimistic caching strategies across distributed systems, reducing load on core services by 70% and achieving ~3ms p50 latency.
- Iteratively optimized PostgreSQL schema design and SQL query patterns, achieving 10x reduction in storage and 2x latency improvement through disciplined performance optimization.
- Built full observability stack for 10 microservices - implementing distributed tracing, structured logging, and Datadog/Grafana metrics dashboards - enabling proactive monitoring and faster incident response.
- Designed and maintained event-driven architecture using RabbitMQ and Google PubSub for async task processing, improving scalability and decoupling core services; applied asynchronous programming patterns to reduce blocking I/O across the stack.
- Resolved 5+ critical production incidents, largest being a six-figure EUR revenue-impact outage; improved on-call processes and runbooks as part of broader reliability engineering efforts.
- Cut deployment time from 15 min to 1.5 min by redesigning CI/CD pipelines with containerization best practices (Docker, Kubernetes), accelerating the team's delivery cadence.
- Led 10+ cross-company initiatives and backend development projects affecting millions of monthly active users; authored RFCs, drove cross-functional alignment with frontend, mobile, security, and data science teams, and ensured long-term stakeholder buy-in.
- Maintained high code quality through automated testing (unit, integration, and contract tests), contributing to clean code standards and enabling confident continuous delivery.
- Integrated AI-powered tooling into development workflows, improving developer productivity and code quality across the team.
- Passed multiple security audits; introduced OpenAPI schemas to standardize service interfaces and enforce API design contracts.
- Authored internal technical documentation and conducted knowledge-sharing sessions to uplevel team capabilities.

Startup Founder, Paragraphe - backed by TechnoSpark

2021-05 - 2022-05

- Architected and deployed a scalable, high-throughput RESTful API using Python and FastAPI with asynchronous programming (asyncio); drove API design decisions to achieve 100+ RPS per instance at sub-50ms latency.
- Built horizontally scalable web and RSS scrapers processing 10,000+ pages daily to feed a personalization pipeline; powered a recommendation engine that classified users by content category, tracked in-article engagement, and delivered daily top-10 article recommendations.
- Deployed and operated production HA infrastructure using Kubernetes, Docker (containerization), Consul, Vault, and Redis via Infrastructure-as-Code (Terraform, Ansible); leveraged AWS and GCP for cloud hosting and managed services.
- Established CI/CD pipelines with ~3 min time-to-deploy and automated testing suites from day one, ensuring reliability and fast iteration cycles.
- Developed a cross-platform mobile app with Flutter, shipping from system design through beta testing with real users.

Python Developer, Freelance

2019-05 - 2021-05

- Implemented an automated proxy rotation pool to bypass geo-restrictions, improving scraper reliability and availability.
- Built an automated local weather forecast analytics and prediction pipeline, collecting ~1,400 data points daily and generating visual reports.
- Created and maintained 5+ Telegram bots using both raw API and framework-based approaches, sustaining 99.9% uptime.
- Established CI/CD pipelines including Docker-based cross-compiled arm64 image builds using Docker Buildx, applying containerization best practices.

Public Speaking

Speaker at PyCon LT, <https://youtu.be/pSWGZim1MvI>

2023-05

Speaker at PyCon PL, <https://youtu.be/sME1OcFgHfk>

2023-06

Speaker at Python Belgrade Meetup

2022-09

Skills

Programming Languages: Python, SQL, TypeScript, Go, Lua, C/C++ (embedded), Dart (Flutter)

Frameworks & Libraries: FastAPI, Django, Asyncio, SQLAlchemy, Pydantic, Celery, Pytest, Node.js

Databases & Messaging: PostgreSQL, Redis, RabbitMQ, PubSub, Kafka, MongoDB, Databricks

DevOps & CI/CD: Docker, Kubernetes, Gitlab CI, GitHub Actions, Terraform, Ansible

Cloud & Infrastructure: AWS, GCP, Linux, Infrastructure-as-Code

Observability & Tooling: Datadog, Grafana, Sentry, Git, VS Code, Cursor, LLMs / AI tooling

Languages

Russian: Native speaker

English: Fluent

French: Intermediate

Serbian: Beginner

Education

Moscow Technical University of Communications and Informatics (MTUCI)

2020-09 - 2022-02

Area: Informatics and Computing Systems