Timofey Zhamoidin

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Professional Summary

Software Engineer with strong expertise in backend development and distributed systems. Specialized in high-performance C++ and Python development for large-scale services, with experience in algorithm optimization and infrastructure engineering. Proven track record of improving system performance and reliability at Yandex across search and storage technology platforms.

Experience

Yandex Aug 2024 - Present
Software Engineer, Search as a Service team

- Architected and implemented a distributed indexing system for next-generation search platform serving **700**+ internal services, focusing on performance optimization and reliability improvements.
- Engineered comprehensive observability solution with internal monitoring and logging tools, reducing MTTR and enabling data-driven performance optimization across the codebase.
- Developed an automated test environment with proactive alerting reducing regression issues and increasing deployment confidence.
- Redesigned concurrent processing pipelines in C++ service utilized by **300**+ services, improved reliability and average pipeline load.

YTSaurus Mar 2024 - Aug 2024
Software Engineer Intern, Dynamic Tables Team

- Developed and optimized load balancing algorithms for dynamic tables service handling **3 EB** of data storage.
- Accelerated existing load balancing algorithm performance by more than **13x** through algorithmic optimizations.
- Improved resource utilization and reduced hotspots.
- Designed and implemented "Top k monster keys" feature for multithreading lookup queries, reducing query latency for complex data structures.

Yandex Feb 2023 - Aug 2023
Software Engineer Intern, Voice Technologies Infrastructure

- Optimized inter-service communication for voice platform serving **57 million** users, reducing transmitted data size by **50%**.
- Developed high-performance microservice handling **5000**+ **RPS** with **99.9%** uptime.
- Redesigned audio delivery architecture increasing reliability and reducing error rates.

Technical Skills

Languages: C++, Python, Go, Rust, C, SQL
Technologies: gRPC, Protobuf, Kafka, Grafana, Google Test, Pytest, YTSaurus, Unix/Linux
Tools: Git, Make, CMake, Docker

Education

Yandex School of Data Analysis, Russia 2024 Sep - 2025 May
Degree in Computer Science, Big Data Track

Higher School of Economics, Russia 2022 Sep - 2026 May
Bachelor's Degree in Computer Science, Faculty of Computer Science, Applied Mathematics and Informatics

Lyceum of Belarusian State University, Belarus 2020 Sep - 2022 May
High School Diploma, Computer Science and Mathematics Major

Projects

Flexible Framing Format Mechanism for ClickHouse HTTP Server

- Implemented Server-Sent Events (SSE) protocol for ClickHouse database, enabling simultaneous transmission of query results and progress information over HTTP.

ClickHouse Memory Allocators Optimization

- Conducted comprehensive performance analysis of memory allocators in ClickHouse database system, identifying critical bottlenecks affecting performance.

Achievements

International Conference of Young Scientists	Bronze medal (**3rd** place)	2022, Serbia
Republican Olympiad of Scientific Works	Gold medal (**1st** place out of 130 works)	2022, Belarus
International Youth Olympiad	The **2nd** reward (**14th** place out of 70 participants)	2022, Russia
Technocup	Finalist (**top 15%** out of 4500 participants)	2021, Russia
Open Olympiad of Schoolchildren in Programming	Finalist (**top 25%** out of 2000 participants)	2021, Russia

Social Activity

Personal Blog (t.me/loopynerd): Sep 2022 - Present
Publishing technical articles and insights on software engineering, distributed systems, and algorithm optimizations.

Academic Assistant, HSE:
Mentoring students in C++ and advanced algorithms, conducting code reviews. Improved student project success rate by **25%**.