Svyatoslav Feldsherov

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KEY SKILLS

SWE · User-space networking
Distributed systems · Concurrency
Performance · Algorithms
Backend · DevOps

LANGUAGES

C++ · Python · Go

TECHNOLOGIES

Linux · Networking
gRPC · Protobuf · Docker
Git

FUN FACTS

· Fixed (tiny) crash in Linux kernel
· Speaker at YaTalks 2023

EDUCATION

MOSCOW STATE UNIVERSITY
2013-2019 | MS in Math
GPA: 5.0/5.0

YANDEX SCHOOL OF DATA ANALYSIS
2016-2018 | CS Track
Machine Learning and Computer Science school in Moscow.

TECHSPHERE
2016-2017 | Data analysis and ML
Educational project hosted by Mail.ru Group and Computer Science faculty at Moscow State University.

COMPETITIONS

Russian National Olympiad in Informatics
2011, 2012 | Prizewinner

EXPERIENCE

Google Cloud, Virtual Network Dataplane Telemetry
08.2022-present | Software Engineer
Working on packet sampling in virtual network data plane. Main part is instrumentation of virtual networking components with packet sampling.
Technologies: internal DPDK-like framework, C++ in network data plane plus gRPC and C++ for packet samples processing.
Main achievements are instrumentation of a new data plane component with packet sampling, 2-10% fast path packet processing speedup by moving expensive syscalls out of fast path, and framework for simplification of packet drops debugging.

Yandex Search
06.2020-06.2022 | Software Engineer / Team Lead
Team I led was working on a company-wide microservices framework, which serves 1000 microservices, 10 million requests per second.
We used C++ for data plane, Python for control plane, and tests/infrastructure.
Main achievements are 99.999% availability, HTTP transport replacement with faster implementation, speedup of distributed tracing over our framework from minute to 1-3sec per request.

Yandex Search
11.2018-06.2020 | Software Engineer
Worked on Search Infrastructure team. C++, Python, grpc, networking.
Designed and implemented SDCH support for Search Engine Result Page. Main part was C++ backend with custom SDCH implementation.
Improved search query preprocessing pipeline. Reimplemented part of business logic with C++, fixed some architectural problems, speedup on 5-10ms on the affected slice of traffic.

Google
07.2018-10.2018 | Software Engineering Intern
Worked on Shopping Data Quality team. Primary C++, MapReduce, Stubby.
Designed and implemented an infrastructure for intellectual scheduling of merchants review. This infrastructure helped to improve existing scheduling logic and allowed the team to migrate from several legacy services.

Yandex Ads
03.2017-06.2018 | Junior Backend Developer
Designed and implemented distributed log collection and event plotting system using internal technologies, including YTsaurus — Bigtable-like storage with MapReduce framework on top of it.
Used coroutine-based web server and batch requests in order to handle required RPS on a small number of servers and not to overload other services.
This feature enabled the frontend team to log any client-side event (usually JS code in a browser) and plot number of any events on clients in real time.

Mail.ru Group, Tarantool
02.2016-12.2016 | Software Engineering Intern
Tarantool is an in-memory NoSQL database implemented in C with some C++.
Implemented a proof of concept version of SQL in Tarantool. We combined SQLite parser and execution engine with Tarantool internal structures (B+*-tree).
Fixed some bugs in Tarantool test engine.
Added intrusive heap to Tarantool data structures library.