



Amelichev Konstantin
2002/01/11

Software engineer

Experience in research, product and infrastructure development. Fast learner, flexible in tech stack. Interested in challenging problems and opportunities to grow as an engineer.

Keywords: Go / Rust / Python / C++

Contacts

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Tbilisi, Georgia

Languages: English (advanced), Russian (native)

Work Experience

Neiro.ai (2022 (autumn) - nowadays)

Backend developer in AI startup. Increased availability and observability of our ML services using cloud solutions. Created custom API gateway to unite different ML API's for REST and GRPC clients with support of large media files. Product development for AI chatbot application and generative AI web studio. Created block-style video editor for ad creation.

High Nu (2022 (spring-summer))

Infrastructure developer in high-frequency trading. I increased number of market data sources using cryptocurrency exchanges rest/websocket API's, improved overall performance through fixing bottlenecks, set up process for continuous data processing, trading, simulation, alerting and monitoring.

Tinkoff.ru (2020 - 2022)

Software developer of high-load services in advertising technologies (e.g. DMP, DSP in [real-time bidding model](#)), which are used for personal recommendations. I improved admin console functionality through usage of macroses for custom creatives, integrated new data providers for better geographic targeting, created like/save mechanics for personal feed. I also did R&D of MVP for the search of creatives based on image content.

Teaching (2019 - 2023)

Teacher in [Tinkoff Edu](#). Lecturer in [advanced algorithms](#) for competitive programming (3 years, 240 students total) and [basic algorithms](#) for bachelor students (1 semester, 350 students total).

[Author and/or developer](#) of 10+ problems for Olympiads in programming.

Projects

[SimSearch](#) (january 2022 - august 2022).

Coursework paper about service developed in Tinkoff.ru. Research of ANN problem. Presenting architecture of search engine for any type of object. This approach led to a content-based image search service.

[3d-renderer from scratch](#) (august 2020 - june 2021).

Library for processing 3d scenes and rendering them in real-time. Uses only "set pixel" graphic primitive from SFML library, rasterization is self-written as well as scene manager.

Open Source Contribution

[DSLAb](#): formal verification of distributed systems with model checker.

[grpc-gateway](#): handling media data with multipart/form-data and macroses.

[knot-resolver](#): anti-censorship feature for DNS resolver.

! Have a look at [my github](#) to find more interesting projects such as [tower-defense game](#) or [AI for playing codenames!](#)

Skills

Main stack: C++, Rust, Python, Go, Git, Linux.

Infrastructure: GCP, AWS, k8s, terraform, ansible, docker, nginx, GitHub Actions, Gitlab CI/CD, Firebase.

Databases: Redis, Aerospike, mongoDB, MySQL, postgresSQL, BigQuery.

Libraries: STL, Boost, OpenCV, serde, numpy, pandas, matplotlib, scikit-learn, pytorch, keras, flask, python-telegram-bot, streamlit.

Tools: Cmake, GDB, Valgrind, Gperf, Lua, protobuf, grpc, grpc-gateway, prometheus, graphite, ffmpeg.

Less relevant experience: Java, Android, HTML+CSS+JS, React, Unity, C#, Markdown, LaTeX.

Education

Higher School of Economics, Computer Science Faculty, BSc. (2019 - 2023)

Applied math and informatics with specialization in distributed systems.

[Thesis](#) on model checking for formal verification of distributed system.

Online-courses: CS50 Game

Development, Udemy Deep Learning and computer vision, Stepik.org: C++, Python, Algorithms, Linux, Git. Have a look at certificates on [my linkedin](#)

Achievements

Second Award in ICPC 1/4, Moscow, 2020

Gold prize winner All-Russian school programming Olympiad 2019

Silver prize winner All-Russian school programming Olympiad 2018

Candidate for Master of Sports in orienteering