

Amelichev Konstantin 2002/01/11

# Sowtware developer

Experience in competitive programming, product and infrastructure development, and research. Applied my coding skills in different areas such as marketing, high-frequency trading, AI and teaching. Interested in challenging problems.

Keywords: Go / Rust / Python / C+

#### Contacts

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Phone number: <u>+995 595-33-53-27</u>. Currently in Tbilisi, Georgia

English: advanced C1 (certified IELTS 7.5)

Russian: native

### **Work Experience**

#### Neiro.ai (2022 (autumn) - nowadays)

Backend developer in AI startup. Working on a service that absorbs all common logic for ML APIs, makes rough APIs from different ML teams fault-tolerant, observable, accessible in one unite format. Responsible for B2B demos & API availability.

#### High Nu (2022 (spring-summer))

Infrastructure developer in high-frequency trading.

I was processing data from cryptocurrency exchanges rest/websocket API's, speeding up bottlenecks, setting up services for continuous data processing/trading/simulation.

#### Tinkoff.ru (2020 - 2022)

Software developer of high-load services in advertising technologies (e.g. DMP, DSP in <u>real-time bidding model</u>), which are used for personal recommendations.

I was developing new features for admin console and API, integrating new data providers, creating like/save mechanics for personal feed. I also did MVP development for the search of creatives based on image content.

#### Teaching (2019 - 2022)

Teacher in <u>an educational project</u> for high school students. I teach advanced algorithms and data structures for competitive programming.

Author and/or developer of 10+ problems for Olympiads in programming: Open Olympiad in programming, Moscow team schools Olympiad in programming, Keldysh's Olympiad, Moscow school Olympiad in informatics

### **Projects**

# Service for finding similar neighbors, content-based image search (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. Skills: C++, Docker, Swagger, system design, research, algorithms. Library for 3d-graphics (august 2020 - june 2021).

Polygon-based library for processing 3d scenes and rendering them in real-time. Stack: linear algebra, c++, CMake, SFML, Doxygen. Abilities: design a library, unit-testing, documentation, computer graphics, and research.

#### **Abilities**

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

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

Tools, databeses, etc: Redis, Cmake, Aerospike, Redis, MySQL, mongoDB, Lua, GDB, Valgrind, Gperf, protobuf, grpc, grpc-gateway, terraform, k8s, prometheus, graphite.

**Less relevant experience:** Java, Android development, HTML+CSS+JS, Unity+C#, Markdown, Latex.

#### Education

**Higher School of Economics**, Computer Science Faculty, Bsc. (2019 - 2023) I study applied math and informatics, my specialization is distributed systems. Favorite courses: Distributed systems, operational systems, algorithms and data structures, linear algebra, concurrency.

### Courses completed

CS50 Introduction in Game Development: Unity, C#, Lua, Love2d, Game development, state machines, sprites, cameras, lights, scenes, shadows. and so on.

Udemy Master Computer Vision™ OpenCV4 in Python with Deep Learning: OpenCV, Python, Rust adaptation of mini projects
Udemy Deep Learning Computer Vision™ CNN, OpenCV, YOLO, SSD & GANs: Deep Learning in computer vision
Stepik.org: C++, Python, Algorithms, Linux, Git.
Have a look at them on my linkedin

# Something else

- Gold prize winner All-Russian school programming Olympiad 2019
- Silver prize winner All-Russian school programming Olympiad
- Candidate for Master of Sports in orienteering
- Silver prize winner All-Russian Spartakiad of students in orienteering 2017

Have a look at <u>my github</u> to find more interesting projects such as <u>tower-defense game</u> or <u>AI for playing codenames!</u>