Amelichev Konstantin
2002/01/11

C++/Rust/Python developer

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

Contacts

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Currently in Tbilisi, Georgia
English knowledge: B2

Work Experience

- **High Nu** (*2022 - nowadays*)
  Infrastructure developer in high-frequency trading.
  Responsibilities: processing data from cryptocurrency exchanges, 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 real-time bidding model), which are used for personal recommendations.
  Responsibilities: developing new features for admin console and API, integrating new data providers, developing like/save mechanics for personal feed, MVP development for the search of creatives based on image content.
- **Teaching** (*2019 - 2022*)
  Teacher in an educational project 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
- **Robot's world** (*2021*)
  Developer of an exhibit for robot's festival. Web interfaces for projector and tablet, the system was able to draw ML-generated (GAN-based) pictures in different styles by user selection.
- **Covidarnost** (*2020*)
  Did voluntary development for Covidarnost project, which was aimed to help people during the lockdown. I was developing a telegram bot for people who want to find their neighbors that are ready to cooperate in buying food and other supplies.

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.

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

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.

Abilities

Main stack: C++, Rust, Python, Git, Linux, Ansible, Docker.
Libraries: STL, Boost, OpenCV, serde, numpy, pandas, matplotlib, scikit-learn, pytorch, keras, flask, python-telegram-bot.
Tools, databeses, etc: Redis, Cmake, Aerospike, Redis, MySQL, mongoDB, Lua, GDB, Valgrind, Gperf, protobuf, grpc, prometheus, graphite.
Some irrelevant experience: Java, Android development, HTML+CSS+JS, Unity+C#, Markdown, Latex.

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 2018
- Candidate for Master of Sports in orienteering
- Silver prize winner All-Russian Spartakiad of students in orienteering 2017