Artem Smirnyagin

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Codeforces: 2166 rating diskoteka (new) temikgo (old)

EDUCATION

Higher School of Economics

Moscow, Russia

Bachelor of Computer Science in Applied Mathematics and Information Science

Sep. 2022 - July 2026

Courses: Advanced C++, Advanced Algorithms and Data Structures, Linear Algebra, Probability Theory, Computer Architecture, Calculus, Fundamentals of Matrix Computations, Differential Equations, Discrete Mathematics, Algebra, Number theory

SKILLS SUMMARY

- **Programming Languages**: C++, C, Assembler, Python(Pandas, Numpy)
- Tools: Linux, Git, Bash, CMake, LATEX
- Languages: Russian (Native), English (Intermediate)

EXPERIENCE

Huawei Moscow, Russia since July 2024

- Developer (research full-time)
 - o Optimize existing solutions (simulator) for execution time estimation
 - o Analyzing and modeling operator execution times to improve prediction accuracy
 - Implemented white-box Ascend-simulator for neural networks analysis
 - o Developed system for analyzing MatMul tiling strategies and integrated it with WB-simulator
 - o Ported quantization routines from GPU to NPU and integrated HiFloat8 format, reducing memory footprint in NN training while maintaining convergence quality

Stepik algo-course developer

Russian platform

Author of problems

March 2024 - Sept 2024

Taking part in the development of algorithms course for Russian students. Develop and prepare problems on Stepik

Yandex YT team

Moscow, Russia

Intern Developer (backend full-time)

- July 2023 Oct 2023
- Enhanced database simulator performance by adding new metrics, optimizing visualization features, and refining the UI
- o Designed and validated heuristics to accelerate database operations in simulation, contributing to performance tuning
- Wrote a script for generating statistics for different simulator runs and update system logs

Codeforces rounds problem setter

International platform

since March 2023 Author of problems • Come up with ideas, develop and prepare problems for regular competitive programming competitions on Codeforces. Writing statements and solutions, doing tests and editorial

Yandex Eats Retail

Moscow, Russia

Intern Developer (backend full-time)

- Sep 2022 Dec 2022
- o Improved the relevance of issuing requests of popular products and optimized the number of queries to the database
- o Added the division of stores into restaurants and foodmalls
- o Participated in the integration of Yandex Eats and Delivery Club

Summer Computer School

Sudislavl, Russia

TeacherAugust 2022

o Given advanced algorithms and data structure lectures and organized training contests for students to prepare for the Russian National Olympiad in Informatics

Projects

- File archiver: Built a command-line file archiver in C++ using Huffman coding, achieving up to 1.5× compression on .txt
- Hash map: Implemented a hash map with double hashing and dynamic resizing, supporting fast insertions and lookups
- Discord Bot: Created a Discord bot for auto-checking math problem solutions, with Google Sheets integration
- Evolution game: game in which you can merge the same fruits, falling from above, into new ones
- Neural Networks from Scratch: Library for convenient construction and usage of fully connected neural networks

ACHIEVEMENTS

- Individual Olympiad for students in Informatics and Programming: Gold medal
- Open Olympiad for students in Informatics: Bronze medal
- Russian National Olympiad in Informatics: final stage participant (top-200 countrywide)
- MSU Techarena 2024: top-1 MSU rank, top-6 absolute rank

Extracurricular Activities

- Volunteering, helping with Olympiads organization, testing & balance problemsets
- Training for ICPC with my team