IVAN ZHUKAU

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ABOUT

- C++ / Python Developer • Competitive Programmer
- Strong background in algorithms, data structures and optimization.
- Interests: Software Engineer, research, quant finance, algorithmic trading, HFT, financial markets

TECHNOLOGIES

- **Languages:** C++17/20, Python, Go
- **Tools & OS:** Linux, Bash, Git, Docker, CMake
- **CS Fundamentals:** algorithms & data structures, competitive programming, networking (TCP/IP, sockets), multithreading, memory management
- **Machine Learning / Data:** NumPy, pandas, scikit-learn, matplotlib

WORK EXPERIENCE & CHALLENGES

Huawei iRunner Challenges
Dec 2022 - Nov 2025

- **Winner of Huawei iRunner Challenges (Oct 2022, Dec 2023, Nov 2025).**
- Solved optimization problems where ranking depended on solution quality rather than just correctness (4th, 5th and 6th places.
- **Stack:** C++, algorithms and data structures, linear algebra, performance optimization.

NearCrowd │ AI Model Trainer
Dec 2022 - May 2025

- Analyzed and annotated large data sets used to train AI models, ensuring a high standard of accuracy and consistency in solving competitive programming problems.
- **Stack:** C++, Algorithms and Data structures.

Harbour.Space │ Python developer
Aug 2025 - Nov 2025

- Built a tool to search for talented students from programming olympiads and competitions and store them in a database.
- Implemented web scraping with Scrapy, parsed public rankings and profiles, and stored structured data in MySQL.
- Designed database schema and queries to search candidates efficiently.
- **Stack:** Python (Scrapy), SQL (MySQL), Linux.

Algorithms and data structures Instructor
Sep 2023 - Feb 2025

- Taught algorithms in camps and schools.
- Places: Leagues of Code, NlogN summer camp 2025, singularity.academy

EDUCATION

Higher School of Economics (Moscow)
Sep 2024 - May 2025

- **Degree:** Bachelor of the Higher School of Economics. Faculty of Computer Science. Applied mathematics and computer science. Advanced course in mathematics and programming
- **Coursework:** Calculus, Number Theory, Discrete Math, Linear algebra and geometry, Advanced C++ (OOP, threads, memory and etc), Python(in math Labs. Using NumPy, Pyplot, scipy), algorithms and data structures.

Harbour.Space (Spain)
May 2025 - May 2027

- **Degree:** Bachelor of the Harbour.Space University. Faculty of Computer Science.
- **Coursework:** Mobile dev(Kotlin), Unity Game Dev(C#), COAS (C + Architecture + bash + NASM), Databases(SQL, MySQL), Linear Algebra 2, Machine learning for masters
- **Current GPA:** 3.54

Projects

- **C backend api** (A tiny HTTP JSON service to store and retrieve (with Docker support)) | link
- **An archiver using the Huffman code** (C++) | link
- **Contribuiter of project for stress testing of solutions to sport programming problems (C++)| link**

OLYMPIAD ACTIVITIES

- **Codeforces rating: 2202**
- **Silver medalist of the 20TH INTERNATIONAL ZHAUTYKOV OLYMPIAD**
- **Prize-winner of the XVII Open Olympiad of Schoolchildren on Programming, 2023/24**
- **Gold medalist of the EUROPEAN JUNIOR OLYMPIAD IN INFORMATICS, 19-25 SEPTEMBER 2022**
- **Second degree diploma of the XXIII All-Russian Open Team Programming Olympiad 2022**
- **The equivalents of a silver medal IATI Junior 2023 and a bronze medal IATI Senior 2024.**
- **Third degree diploma of the Belarusian Republican Olympiad in Informatics 2023**
- **and others**