Belov Vitaly Vitalievich

Date of Birth: 10.12.2002 | Moscow, Moscow Region | Phone: +7 967 961 58 24 | vita.belov2016@yandex.ru |
GitHub: poliroika | Telegram: @poliroika

Work Experience (3+ years)

Sberbank, IDP team

Data Scientist / ML Engineer / NLP   04.2025–07.2025

Responsibilities: Member of the IDP (internal document processing) team; developed an internal RAG-based service and a Data Enrichment service. Improved answer quality by 4 points overall and by 12 points on meta-questions; designed a new architecture for graph RAG; further handled product maintenance and support.

Tech stack: Python, Docker, C++, ML, NLP, NoSQL.

Results: Added meta-chunk support; introduced entity extraction and classification in the document-processing stage; designed the graph RAG architecture.

Applied Research Laboratory, Dukhov Automatics Research Institute (VNIIA), Rosatom

Python/C++ Developer & Algorithm Engineer   09.2022–04.2025

Responsibilities: Development and optimization of classical and quantum algorithms (Python, C++); project maintenance; applying quantum computing and ML; using NLP for recommendations.

Tech stack: Python, C++, ML, NLP.

Results: Rosatom projects — NDA; academic publications.

Analyst, Tinkoff, Project Internship   06.2022–07.2022

Responsibilities: Data analysis and reporting; SQL query optimization; collaboration with developers and marketing.

Tech stack: SQL, Python.

Results: Delivered a case solution as a team.

Education

MIPT (Moscow Institute of Physics and Technology), Master's   2024–2025
Faculty of Applied Mathematics and Informatics; specialization: Problems of Modern Mathematics.
HSE University, Bachelor's   2020–2024
Faculty of Physics; specialization: Quantum Computing.
Additional: Deep Learning School (2024); Yandex Algorithm Trainings (2024); Computer Vision course (Samsung) (2024); Vega Institute courses (Financial Mathematics, Monte Carlo, Game Theory) (2025); Yandex handbooks (2024–2025).

Skills

Languages: Python (numpy, pandas, pytorch, matplotlib, sklearn, SciPy, seaborn), C++, SQL.
Tools: Docker, Kafka, Hadoop, Git.
Methods: ML, NLP, algorithms.

Side Projects

ML model for predicting professional Dota 2 matches   01.2024–02.2024

Competitions & Hackathons

Kontur selection hackathon: Selection for a Data Scientist position at Kontur.
Sber team selection hackathon: Selection for an NLP team at Sber.
Course certification hackathon: Final hackathon for an ML course (Gazprom).
Algorithmic trading hackathon: Organized by Spectral::Technologies.

Publications

Measurement-induced phase transition in the central spin model: second Rényi entropy in dual space approach
Study of information phase transitions in a quantum system.

Dynamical quantum Ansatz tree approach for the heat equation
A new quantum–classical algorithm for solving the heat equation.