

Maxim Mashtaler

+79261335515

mashtaler.mk@phystech.edu

GitHub Profile

Kaggle Profile

EDUCATION

- Moscow Institute of Physics and Technology (MIPT)** 2024-2028
Department of Control and Applied Mathematics, Dolgoprudnyy GPA: -/10
- Kapitsa Physics and Technology Lyceum (MIPT lyceum)** 2013-2024
Major of Computer Science, Dolgoprudnyy GPA: 9.2/10
- Moscow School of Programmers** 2018-2023
Backend developer, Moscow GPA: 8.9/10

KEY ACHIEVEMENTS

- Winner of International AI Challenge** December 2024
- Winner of National Technology Olympiad in Artificial Intelligence** March 2024
- ICOMP'25 Honourable Mention at "ai4opt" competition** October 2025

TECHNICAL SKILLS AND INTERESTS

Technical Skills: C++, Python, Machine Learning, Deep Learning, NLP, CV, Algorithms and Data Structures, Data Analysis, Transformers, RecSys, scikit-learn, PyTorch, numpy, pandas, SQL

Soft Skills: public speaking, management, leadership, communication, stress resistance, project presentation

Field of Interest: optimization methods, Natural Language Processing, de novo protein design, large action models

Hobbies: chess, swimming, volleyball, gym, cooking, ice skating

EXPERIENCE

- Researcher at Laboratory of Mathematical Optimization Methods** July 2025 - present
Moscow Institute of Physics and Technology
– Working under supervision of prof. Alexander Gasnikov
– Youngest researcher ever invited to this lab
- Head of the department of educational intensives on Big Data and AI** November 2024 - present
Educational center "Vzlet"
– Was the main organizer on camp, supervised educational processes and managed a team of teachers.
– Was a lecturer of Neural Networks course
– Became an certified Expert of project competition "Big Challenges" and conduct regional intensive training programs
- Academic supervisor of the educational intensives on Neural Networks and ML** June 2024 - May 2025
Phystech bootcamp 'codiim' for teenagers
– Prepared and accompanied whole educational processes, conducted internal competitions on Codeforces and Kaggle
– Was a mentor for the projects of the participants: technical and humanitarian support for teams

RESEARCH PAPERS

- AdLoCo: adaptive batching significantly improves communications efficiency and convergence for LLMs**
Accepted at International Conference On Computational Optimization'25 (ICOMP 2025)
– We propose a new three-stage method that combines Multi-Instance Training (MIT), Adaptive Batched DiLoCo, and switch mode mechanism
– We also provide a theoretical estimate of the number of communications required for the full convergence of a model trained using our method.

APPLIED PROJECTS

- Automated relevant news digest collection** June 2024
Task from Yandex.Cloud hackaton
– Tools & technologies used: Flask, ReactJS, sentence transformers, YandexGPT
– We have created a light-weight service for full-automated relevant news digest collection: parse, detect and remove semantic duplicates, build pdf report with internal ranking model
- Meeting Transcription & Minutes Automation** September 2024 - March 2025
Hackathon project → startup (mentioned on Government of Russia website)
– Tools & technologies used: Python, Whisper, Vikhr as LLM, RabbitMQ, S3
– Built an event-driven pipeline (FastAPI → RabbitMQ → workers) for preprocessing, ASR, postprocessing, LLM minutes, and export. Ensured reliability with stage separation, retries/DLQ, and idempotent job processing; stored raw/intermediate/final artifacts in S3. Generated structured minutes (summary, decisions, action items) with time-stamps in shareable formats