Nikita Kiselev

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Data Scientist, Optimization Researcher

WORK EXPERIENCE

Sber AI

Middle Data Scientist .... *Jan 2025 – Present*

Kandinsky Video Editing

Research Intern .... *Jun 2024 – Dec 2024*

Kandinsky Image Editing:
- Interior Design with Kandinsky 3 ControlNet for Domclick
- Kandinsky 3 ControlNet Style (DepthPro) that outperforms ControlNet Union SDXL by 100% on ImageReward

Research Center for Artificial Intelligence, Innopolis University

Mathematician-programmer .... *Sep 2024 – Present*

Laboratory of Mathematical Methods of Optimization, MIPT

Technician .... *Oct 2023 – Apr 2024*

FEATURED PUBLICATIONS

1. D. Yarmoshik, A. Rogozin, N. Kiselev, D. Dorin, A. Gasnikov, D. Kovalev. Decentralized Optimization with Coupled Constraints. // Submitted to the **ICLR 2025** conference, **A***

2. D. Dorin, N. Kiselev, A. Grabovoy, V. Strijov. Forecasting fMRI Images From Video Sequences: Linear Model Analysis. // Health Information Science and Systems, **Q1**

3. N. Kiselev, A. Grabovoy. Unraveling the Hessian: A Key to Smooth Convergence in Loss Function Landscapes. // Accepted to the Doklady Mathematics journal, Q2

4. N. Kiselev, A. Grabovoy. Sample Size Determination: Likelihood Bootstrapping. // Accepted to the Computational Mathematics and Mathematical Physics journal, Q2

FEATURED TALKS

- April 6, 2024. Determining a sufficient sample size based on the a posteriori distribution of model parameters. // 66th MIPT All-Russian Scientific Conference.

FEATURED ACHIEVEMENTS

- K.V. Rudakov scientific academic scholarship for research activities in the field of applied mathematics:
  - Fall 2024-2025, Fall 2023-2024
- Personal scholarship for contributions to the development of numerical optimization methods:
  - Fall 2024-2025, Spring 2023-2024, Fall 2023-2024
- Abramov scholarship for 1-3 year bachelor students with the best grades at MIPT:
  - 2020-2023

SUMMARY

Aspiring researcher (1+ year of research experience) in the field of machine learning and optimization. Focused on generative diffusion and multimodal models. Motivated for productive work and learning. Having a substantial theoretical foundation and mathematical background.

SKILLS

DL: PyTorch, Huggingface, Accelerate, Multi GPU training: DDP/FSDP, W&B, TensorBoard

ML: NumPy, SciPy, Pandas, NetworkX, Scikit-learn, LightGBM, CatBoost

OS: macOS, Linux, Windows

Misc.: Git, Bash, LaTeX

Soft: responsible, organized, critical thinker, flexible, communicative, team player, patient

EDUCATION

MIPT .... **Moscow, Russia**
MSc in Computer Science
Sep 2024 – Present

MIPT .... **Moscow, Russia**
BSc in Applied Mathematics and Physics
Sep 2020 – Aug 2024
- Thesis:
  Bayesian Sample Size Estimation
- Advisor:
  Andrey Grabovoy, PhD
- GPA: 4.88/5 (with honours)

LANGUAGES

- Russian (Native)
- English (Advanced)

INTERESTS

- Gym
- Guitar