

Nikita Morozov

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Research Interests

Deep Learning, Probabilistic Modeling, Generative Modeling, Reinforcement Learning, AI for Science

Education

HSE University <i>PhD in Computer Science, supervisor: Dmitry Vetrov</i>	November 2024 – Present <i>Moscow, Russia</i>
HSE University <i>Master's programme 'Math of Machine Learning', GPA: 9.66/10</i>	September 2022 – July 2024 <i>Moscow, Russia</i>
HSE University <i>Bachelor's programme 'Applied Mathematics and Information Science', GPA: 9.65/10</i>	September 2018 – July 2022 <i>Moscow, Russia</i>

Work Experience

HSE University, Centre of Deep Learning and Bayesian Methods <i>Research Assistant</i> <ul style="list-style-type: none">Current topic: Generative Flow Networks (GFlowNets), supervisor: Dmitry VetrovPrevious topic: Novel view synthesis and text-to-3D generation, supervisor: Kirill Struminsky	December 2021 – Present <i>Moscow, Russia</i>
EPFL MLBIO <i>Research Intern</i> <ul style="list-style-type: none">Topic: Geometric diffusion models for single-cell data, supervisor: Maria Brbic	June 2024 – September 2024 <i>Lausanne, Switzerland</i>
AIRI <i>Research Intern</i> <ul style="list-style-type: none">Topic: Applying GFlowNet techniques to diffusion models, supervisor: Aibek Alanov	May 2023 – July 2023 <i>Moscow, Russia</i>
Yandex <i>Software Engineer Intern</i> <ul style="list-style-type: none">Refining C++ API of distributed computing platform YTsaurosOptimization of internal data exchange format parsers and writers	July 2019 – November 2019 <i>Moscow, Russia</i>

Teaching

HSE University <i>Teaching Fellow</i> <ul style="list-style-type: none">Courses: Machine Learning, Deep Learning, Probability Theory	September 2022 – Present <i>Moscow, Russia</i>
HSE University <i>Teaching Assistant</i> <ul style="list-style-type: none">Courses: Machine Learning, Algebra, Algorithms and Data Structures	September 2019 – June 2022 <i>Moscow, Russia</i>

Awards

HSE FCS Scholarship for Scientific Contributions <i>Awarded for the paper "Generative Flow Networks as Entropy-Regularized RL"</i>	2024
International Collegiate Programming Contest (ICPC) <i>21/276 place in Northern Eurasia Finals, advanced to World Finals</i>	2023/2024
International Collegiate Programming Contest (ICPC) <i>42/281 place in Northern Eurasia Finals</i>	2022/2023
Ilya Segalovich Scholarship <i>HSE University & Yandex scholarship for outstanding achievements in study and research</i>	2021, 2023
HSE Student Research Paper Competition <i>Awardee in computer science category</i>	2022

Publications

[Optimizing Backward Policies in GFlowNets via Trajectory Likelihood Maximization](#)

Timofei Gritsaev, **Nikita Morozov**, Sergey Samsonov, Daniil Tiapkin

Preprint 2024

[Improving GFlowNets with Monte Carlo Tree Search](#)

Nikita Morozov, Daniil Tiapkin, Sergey Samsonov, Alexey Naumov, Dmitry Vetrov

ICML 2024 Workshop on Structured Probabilistic Inference & Generative Modeling

[Generative Flow Networks as Entropy-Regularized RL](#)

Daniil Tiapkin*, **Nikita Morozov***, Alexey Naumov, Dmitry Vetrov

AISTATS 2024 (Oral)

[Differentiable Rendering with Reparameterized Volume Sampling](#)

Nikita Morozov, Denis Rakitin, Oleg Desheulin, Dmitry Vetrov, Kirill Struminsky

AISTATS 2024, Short version of this paper appeared in ICLR 2023 Workshop on Neural Fields

[Weight Averaging Improves Knowledge Distillation under Domain Shift](#)

Valeriy Berezovskiy, **Nikita Morozov**

ICCV 2023 Workshop on Out-of-Distribution Generalization in Computer Vision

Reviewing

ICML 2024 (1 paper), ICLR 2025 (3 papers)

Skills

Programming Languages: Python, C++, C

Deep Learning Frameworks: PyTorch, JAX

Other Programming: Git, Unix, Spark, CUDA (basic knowledge)

Languages

English: C1, **Russian:** Native, **French:** A1