Nikita Morozov

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Research Interests

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

Education

HSE University

November 2024 – Present

PhD programme in Computer Science, supervisor: Dmitry Vetrov

Moscow, Russia

HSE University September 2022 – Iuly 2024

Master's programme 'Math of Machine Learning', GPA: 9.66/10

Moscow, Russia

HSE University September 2018 – July 2022

Bachelor's programme 'Applied Mathematics and Information Science', GPA: 9.65/10

Moscow, Russia

Work Experience

HSE University, Centre of Deep Learning and Bayesian Methods

December 2021 - Present

Research Assistant Moscow, Russia

• Current topic: Generative Flow Networks (GFlowNets), supervisor: Dmitry Vetrov

Previous topic: Novel view synthesis and text-to-3D, supervisor: Kirill Struminsky

EPFL MLBIO June 2024 – September 2024

Research Intern

Lausanne, Switzerland

• Topic: Geometric diffusion models for single-cell data, supervisor: Maria Brbic

AIRI May 2023 – July 2023

Research Intern

Moscow, Russia

• Topic: Applying GFlowNet techniques to diffusion models, supervisor: Aibek Alanov

Yandex July 2019 – November 2019

Software Engineer Intern

Moscow, Russia

- Refining C++ API of distributed computing platform YTsaurus
- Optimization of internal data exchange format parsers and writers

Teaching

HSE University September 2022 – Present

Teaching Fellow Moscow, Russia

• Courses: Machine Learning, Deep Learning, Probability Theory

HSE University September 2019 – June 2022

Teaching Assistant Moscow, Russia

• Courses: Machine Learning, Algebra, Algorithms and Data Structures

Awards

Ilya Segalovich Scholarship

HSE University & Yandex scholarship for outstanding achievements in study and research 2021, 2023, 2025

HSE FCS Scholarship for Scientific Contributions

Awarded for the paper "Generative Flow Networks as Entropy-Regularized RL" 2024

International Collegiate Programming Contest (ICPC)

21/276 place in Northern Eurasia Finals, advanced to World Finals 2023/2024

International Collegiate Programming Contest (ICPC)

42/281 place in Northern Eurasia Finals 2022/2023

HSE Student Research Paper Competition

Awardee in computer science category 2022

Adaptive Destruction Processes for Diffusion Samplers

Timofei Gritsaev, **Nikita Morozov**, Kirill Tamogashev, Daniil Tiapkin, Sergey Samsonov, Alexey Naumov, Dmitry Vetrov, Nikolay Malkin

Preprint 2025

Revisiting Non-Acyclic GFlowNets in Discrete Environments

Nikita Morozov*, Ian Maksimov*, Daniil Tiapkin, Sergey Samsonov ICML 2025

Tissue Reassembly with Generative AI

Tingyang Yu, Chanakya Ekbote, **Nikita Morozov**, Jiashuo Fan, Pascal Frossard, Stéphane d'Ascoli, Maria Brbić Preprint 2025

Optimizing Backward Policies in GFlowNets via Trajectory Likelihood Maximization

Timofei Gritsaev, **Nikita Morozov**, Sergey Samsonov, Daniil Tiapkin ICLR 2025

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

ICLR 2025 (3 papers), NeurIPS 2025 (5 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

^{* —} equal contribution.