

TIMUR LIDZHIEV

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EDUCATION

HSE University

Master of Science in Machine Learning

Moscow, Russia

Sep. 2025 — Present

HSE University

Bachelor of Science in Computer Science — GPA: 3.8/4.0

Moscow, Russia

Sep. 2021 — June 2025

EXPERIENCE

Machine Learning Engineer, R&D Geo Team

June 2024 – Present

VTB Bank — Top-3 Russian Bank

Moscow, Russia

- Trained and inferred a Gradient Boosting model ranking ATM sites across Russia's major cities using geo-spatial features
- Matched gradient-boosting accuracy on apartment price prediction with advanced tabular DL architectures
- Built PySpark pipelines to prepare large-scale training datasets for model development

Graduate Research Assistant

Sep. 2025 – Present

HSE University

Moscow, Russia

- Researching representation learning via eigenfunctions of differential operators
- Developing PINN-based approaches for generating orthogonal matrices under PDE constraints
- Exploring PINN solvers for the Boltzmann PDE and related kinetic models

Undergraduate Research Assistant

Sep. 2024 – June 2025

HSE University

Moscow, Russia

- **Accepted for poster at EAGE Conference 2025**
- Implemented integral loss for differential equations with discontinuous solutions in porous fluid systems
- Implemented scalable framework for solving PDEs with high-dimensional spatial domains

PROJECTS

Physics-Informed ML |

- Reproduced key PIML models and benchmarked them on several PDEs

Image Generation |

- Implemented VAE and DDPM models and evaluated them on MNIST and Celeba-HQ datasets

Med-XRay-SSL |

- Fine-tuned SSL model RAD-DINOv2 on XRay chest dataset with disbalanced classes for binary / multi-label classification

EXTRACURRICULAR

Teaching Assistant

Sep. 2024 — Jun. 2025

HSE University

- Led tutorials, exams, and office hours for ~170 students; prepared and graded coursework
- Designed assignments and applied projects:
 - Spectral clustering with in-house Power/QR eigensolvers; benchmarked against `scikit-learn`
 - Monte Carlo integration (Rejection/Importance Sampling/Metropolis-Hastings)
 - Interpolation for approximation/validation
 - Optimization for ML/DL (Newton, SGD, autodiff)

Teaching Assistant

Sep. 2023 — Jan. 2024

Yandex School of Data Analysis

- Evaluated homework and outcomes for 50 students in Linear Algebra, Real Analysis, and Probability & Statistics; provided actionable feedback

TECHNICAL SKILLS

Languages: Python, SQL (Postgres), C++

Libraries: PyTorch, Jax, Hugging Face, PySpark, CatBoost, Scikit-Learn, Numpy, Pandas, Sci-Py