Viktor Mamontov

Machine Learning Scientist • Computational Biology • Deep Learning & Data Science

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PROFESSIONAL SUMMARY

Computational scientist and machine learning practitioner with a PhD in Life Science and 10+ years of experience turning complex, high-dimensional biological data into predictive models and actionable insight. Specialised in deep learning for multivariate time-series forecasting and classification (PyTorch, TensorFlow), with end-to-end skills from data preprocessing through architecture design, training and evaluation. Currently a postdoctoral researcher at a Max Planck Institute, looking to apply ML and data-science expertise in an industry R&D or data-science role in the Cologne / Rhineland region.

CORE SKILLS

Machine Learning & AI: Deep learning (LSTM/GRU, CNN, Transformers), multivariate time-series forecasting, classification, neural-network architecture optimisation, model evaluation

Frameworks & Libraries: PyTorch, TensorFlow, Keras, scikit-learn

Data Science & Analysis: NumPy, pandas, SciPy, statistical analysis, exploratory data analysis, data visualisation (matplotlib, seaborn), data labeling

Programming: Python (primary), R, Bash, MATLAB

Tools & Platforms: Microsoft Azure, Git, Docker, AI prompt engineering

Domain Expertise: Bioinformatics, genomics & metagenomics (16S / NGS), microbial-community analysis, mathematical and stochastic modeling

PROFESSIONAL EXPERIENCE

Postdoctoral Researcher Jun 2023 – Present
Max Planck Institute for Plant Breeding Research — Cologne, Germany

- Designed and implemented deep-learning models (LSTM/GRU, CNN and Transformer architectures in PyTorch) to forecast multivariate time series of microbial-community dynamics.
- Built a neural-network classifier predicting microbial-community composition from carbon-source conditions.
- Own the end-to-end ML workflow — data preprocessing, feature engineering, architecture design and optimisation, training, and evaluation.
- Communicate technical results to interdisciplinary scientific audiences through reports and presentations.

Junior Research Scientist Oct 2019 – May 2023
Laboratory of Metagenome Analysis, Skoltech — Moscow, Russia

- Performed computational analysis of 16S rRNA sequencing data across metagenomic datasets, including statistical analysis and visualisation of results.
- Established a benchmarking framework comparing DNA-isolation methods for marine metagenomics, informing best-practice protocols for the lab.

Researcher Jun 2014 – Jul 2018
Ajinomoto-Genetika Research Institute — Moscow, Russia

- Analysed genomic and metabolic datasets to support strain-engineering research projects.
- Designed research projects and delivered data visualisations and presentations to internal stakeholders.

EDUCATION

PhD in Life Science Oct 2018 – Sep 2023
Skoltech — Moscow, Russia

MSc in Biophysics (Diploma with honours) Sep 2011 – Jun 2017
Lomonosov Moscow State University — Moscow, Russia

Division of Biophysics, Bioengineering and Biotechnology, Faculty of Biology.

LANGUAGES

English C1 **German** B1