

Curriculum Vitae

General Information

Name: Andrei Dmitrenko

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Languages: Russian | English | German | French



Summary

Applied mathematician by training with a Master's degree in bioinformatics and a Doctor of Sciences (Dr.Sc.) from ETH Zürich. Experienced in academia, industry and consulting. Presenter at major conferences including the Conference on Neural Information Processing Systems (NeurIPS), the International Conference on Machine Learning (ICML), the Medical Imaging with Deep Learning Conference (MIDL), Applied Machine Learning Days (AMLD), the Swiss Data Science Conference (SDS), BioTechX Europe, and others. Skilled in research, project and team management. Passionate about building scalable, efficient and explainable AI systems to address real-world problems.

Experience

Since 2022 — D ONE AG, Data Driven Value Creation (Switzerland)

Senior consultant working across life sciences, legal tech, aviation regulation, construction and luxury goods. I develop large-language-model-based and customised retrieval-augmented generation applications; perform data-driven analytics using cloud and on-premises infrastructure; engineer machine-learning and natural-language solutions; build scalable data infrastructure; and advise developers and managers on generative AI adoption.

Since 2022 — ITMO University, Center for AI in Chemistry (Russia, remote)

Lead researcher pioneering applications of agentic systems for drug discovery and information extraction. I created open databases to disseminate knowledge in chemistry and materials science; led a team of more than 20 researchers in bio- and cheminformatics; lectured on AI courses for Master students; co-authored papers in A* conferences (e.g., ICML 2024, NeurIPS 2024) and workshops; served as a reviewer for NeurIPS, ICLR and ICML; and established best practices for scientific project management.

2023-2025 — Calico Life Sciences LLC, an Alphabet company (USA, remote)

I worked with the Discovery Data Science and Data Engineering teams as an external data and software engineer. I architected and built a data warehouse integrating external genomic knowledge bases; enabled large-scale statistical analysis of gene expression profiles; migrated complex data-processing pipelines for large transcriptomics datasets to the cloud; engineered a cloud-based gene pathway representation build system; managed infrastructure as code; performed code reviews; and contributed to multiple cloud-based products.

2018-2022 — ETH Zürich, Institute of Molecular Systems Biology (IMSB), Zamboni lab (Switzerland)

As a doctoral researcher, I developed RALPS, the first deep-learning method for scalable multi-batch high-throughput mass-spectrometry data normalisation; designed and built a system-suitability testing platform to monitor performance of an Agilent 6550 iFunnel Q-TOF instrument; proposed an efficient and explainable deep-learning workflow for studying drug effects on one million microscopy images of cancer cells; and systematically investigated representation learning for biological microscopy imaging data.

2016-2018 — BIOCAD LLC, biotechnology company (Russia)

Started as a specialist in bioinformatics and became systems biology team lead. I designed and implemented approaches for modelling pharmacokinetics and pharmacodynamics of multiple drugs reaching early clinical trials; prototyped a computer-vision solution to classify immunohistochemistry images; developed a statistical tool to streamline immunogenicity assessment of antibodies; supported experimental teams on statistical analyses; and increased precision of Gibbs energy calculations for drug discovery and lead optimisation. As team lead I trained a team of four, integrated PK/PD modelling into the product development pipeline.

Education**2018-2022 — Doctor of Sciences ETH Zurich**

ETH Zürich (Switzerland), Institute of Molecular Systems Biology.

2015-2017 — Master's Degree in Bioinformatics

Peter the Great St. Petersburg Polytechnic University (Russia).

2011-2015 — Bachelor's Degree in Applied Mathematics, Physics and Computer Science

St. Petersburg State University (Russia).