

Aleksandr Bogdanov

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Education

Physics and Mathematics Lyceum №239

Secondary School

- Weighted GPA on five-point scale: 4.71

Saint-Petersburg, Russia

Sept 2013 - June 2020

Moscow Institute of Physics and Technology (MIPT)

B.S. in Applied Mathematics and Physics

- Phystech-School of Applied Mathematics and Computer Science, direction «Applied mathematics and physics»
- Department of Intelligent Systems
- Weighted GPA on ten-point scale: 8.71
- Graduate qualification paper on «Gradient approximation using zero-order oracle and memorisation techniques».
- Red Diploma

Moscow, Russia

Sept 2020 - June 2024

Moscow Institute of Physics and Technology (MIPT)

M.S. in Computer Science and Engineering

- Phystech-School of Applied Mathematics and Computer Science, direction «Computer Science and Engineering»
- Department of Mathematical Fundamentals of Control
- Weighted GPA on ten-point scale: 9.50

Moscow, Russia

Sept 2024 - Present

Yandex School of Data Analysis

Additional education

- Specialization «Machine learning developer»
- Weighted GPA on five-point scale: 4.08

Moscow, Russia

Sept 2023 - June 2025

Work Experience

Laboratory of Mathematical Methods of Optimization (MIPT)

Research Scientist, Assistant, Operations Manager and Lead

- Writing research papers about mathematical methods of optimization
- Assistant (2023y) at the course «Optimization Methods»
- Lead (2023y - 2024y) at the course «Optimization Methods»

Moscow, Russia

Au 2023 - Dec 2024

Laboratory of Fundamental Research MIPT - Yandex (MIPT)

Research Scientist

- Writing research papers about mathematical methods of optimization

Moscow, Russia

Au 2023 - Dec 2024

Yandex.Research (Yandex)

Research Scientist

- Writing research papers on mathematical methods of optimization and machine learning

Moscow, Russia

Au 2024 - June 2025

Moscow State University (MSU)

Teacher

- Teacher (2025y) at the course «Optimization Methods»

Moscow, Russia

Feb 2025 - June 2025

Laboratory of Fundamental Machine Learning Research (MIPT)

Research Scientist, Operations Manager and Lead

- Writing research papers about mathematical methods of optimization
- Lead (2025y) at the course «Optimization Methods»

Moscow, Russia

Jan 2023 - Present

Department of Mathematical Fundamentals of Control (MIPT)

Assistant and Teacher

- Assistant (2022y) at the course «Theory and Implementation of Programming Languages»
- Assistant (2023y) at the course «Algorithms and Models of Computation»
- Assistant (2023y) at the course «Theory of algorithms and models of computation»
- Assistant (2024y) at the course «Optimization Methods»
- Senior teacher (2024y) at the course «Optimization Methods»
- Teacher (2024y) at the course «Optimization Methods»
- Assistant (2025y) at the course «Reinforcement learning»

Moscow, Russia

Sept 2022 - Present

Central University (CU)

Lead, Author, Senior Assistant

- Senior Assistant (2024y) at the course «Linear Algebra»
- Senior Assistant (2025y) at the course «Discrete Mathematics»
- Lead (2025y) at the course «Optimization Methods»
- Author (2025y) at the course «Optimization Methods»

Moscow, Russia

Sept. 2024 - Present

Projects

SQL-database «Canteen»

Moscow Institute of Physics and Technology

Moscow, Russia

Sept 2020 - Dec 2021

- Creating my own SQL-database for the Canteen in MS SQL

Quantisation

Yandex.Research

Moscow, Russia

June 2024 - Present

- Research paper about quantisation

Publications

ARTICLES

New aspects of black box conditional gradient: Variance reduction and one point feedback

Andrey Veprikov, Aleksandr Bogdanov, Vladislav Minashkin, Aleksandr Beznosikov

Chaos, Solitons & Fractals (Q1) 189 (2024) p. 115654. 2024

CONFERENCES

Application of zero-order stochastic approximation with memoisation technique in the Frank-Wolfe algorithm

Aleksandr Bogdanov, Andrey Veprikov, Vladislav Minashkin, Aleksandr Beznosikov

66 conference MIPT, 2024

Research visits

Management, information and optimisation named after B. T. Polyak

Nizhny Novgorod, Russia

MIPT, HSE, MSU, Wildberries

July 2023

- School on Optimisation Methods and Machine Learning, where the development of Boris Theodorovich Polyak's ideas in modern science was discussed

Management, information and optimisation named after B. T. Polyak

Novosibirsk, Russia

MIPT, HSE, MSU, RRI

July 2024

- School on Optimisation Methods and Machine Learning, where the development of Boris Theodorovich Polyak's ideas in modern science was discussed

Skills

- Machine learning
- Reinforcement learning
- Time series
- Bayesian learning
- Recommendation Systems

Machine learning

- Computer vision
- Natural Language Processing
- Generative models
- Self-Driving Cars
- Speech technology
- Graph models

Programming

C/C++, Python, GO, SQL, assembler

Miscellaneous

Linux, L^AT_EX, Microsoft Office, Git

- Numerical optimization
- Probability theory

Math

- Linear algebra
- Mathematical analysis
- Mathematical statistics

Languages English (C1), Russian (Mother tongue)

Achievements

2022	Scholarship , Excellent grades scholarship	MIPT
2022-2023	Scholarship , Abramov scholarship	MIPT
2024	Scholarship , Rudakov scholarship	MIPT
2024	Red diploma , Red bachelor's diploma	MIPT
2024-2025	Scholarship , Contribution to the development of numerical methods of optimization	MIPT
2024-2025	Scholarship , Enhanced state academic scholarship	MIPT