Artem Riabinin

Thuwal, Saudi Arabia

About me

I am currently an MS student working on optimization for machine learning and federated learning at King Abdullah University of Science and Technology (KAUST), advised by professor Peter Richtárik.

My past research interests and experience lie in applied mathematics, including numerical methods, inverse ill-posed problems and their applications. For example, I was involved with the processing of images obtained by laser radars.

Interests

Mathematical and Algorithmic Foundations of Machine Learning, Optimization for Machine Learning, Federated Learning, Numerical Methods, Inverse and Ill-Posed Problems.

Education

King Abdullah University of Science and Technology (KAUST)

Sep. 2023 - Present

Master of Science in Applied Mathematics and Computer Science

Thuwal, Saudi Arabia

Main courses: Machine Learning, Stochastic Gradient Descent Methods, Stochastic Processes, Numerical Linear Algebra.

Topic: Optimization for Machine Learning, group of professor Peter Richtárik

Lomonosov Moscow State University (MSU) Bachelor of Science in Physics and Applied Mathematics

Sep. 2019 - May. 2023

Graduated with honours (GPA 4.88/5.00).

Main courses: Numerical Methods, Functional Analysis, Theory of Random Processes, Probability Theory, Statistic.

Thesis: On the matching of regularization parameters with different types of measurement data errors.

Moscow Institute of Physics and Technology (MIPT)

Sep. 2017 - May. 2019

School education

Moscow, Russia

Moscow, Russia

Graduated with honours (GPA 5.00/5.00).

Physics and Technology Lyceum № 38

Sep. 2015 – May. 2019

School education

N.Novgorod, Russia

For the period of education at specialized technical lyceum I won and became the winner of different Olympiads in Physics and Mathematics as regional as well as of All-Russian level.

Work Experience

Physics Department of Lomonosov Moscow State University

Sep. 2021 - May. 2023

Moscow, Russia

For the period of my work on the base of Moscow State University I developed and delivered two courses aimed at training of school students for experimental round of All-Russian Olympiad in Physics.

Research Experience

REGULARIZATION METHODS FOR IMAGE RECONSTRUCTION

Sep. 2021 - May. 2023

Graduate student researcher

Moscow, Russia

For the period of my work at Lomonosov Moscow State University I was carrying out research work and comparison of different regularization methods for solving the problem of image processing within the group under the authority of professor Anatoly Yagola.

DEVELOPMENT OF A DISTANCE LEARNING SYSTEM

Sep. 2021 - May. 2023

Laboratory assistant

Moscow, Russia

Besides scientific activity at the Department of Mathematics I practiced the development of a distance learning system on the base of Moscow State University for school students.

Technical Skills

Languages: Russian (native), English (fluent) **Programming:** Python, MATLAB, C++ (basic) Software: Jupyter Notebook, Git, LATEX