# Rustem Islamov

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#### **EDUCATION**

#### Bachelor of Science in Applied Mathematics

Moscow Institute of Physics and Technology

GPA: 4.96/5 (9.27/10), Top 3 at the department

Sept. 2017 – June 2021 Dolgoprudny, Russia

## Research Interests

Machine Learning, Optimization, Distributed Optimization

## Projects and Extra Activities

#### Introduction to Scientific work

Feb. 2020 - May 2020 • Course name: My First Scientific Paper

- Supervisor: Vadim Strijov
- Brief Description: Learned how to write scientific papers, organize work within a group
- Analysis of the ensemble of local models, paper on Github

## Project on Optimization Methods

Apr. 2020

- Brief Description: Implemented different Optimization methods for improving the quality of classification models (Logistic Regression, SVM), methods for Trend Filtering
- Project on Github

## Mathematics and Python for Data Analysis in Coursera

Feb. 2020

- Brief Description: Learned Mathematics for Data Analysis and how to use it in Python
- Certificate

#### Introduction to Programming (C++)

Jul. 2016

- Brief Description: Learned C++ for solving different mathematical and programming problems
- Certificate

## LANGUAGES

Russian: Native Tatar: Native

English: Advanced (C1) Spanish: Elementary (A1)

# Technical skills

**Operating Systems:** Microsoft Windows, Linux

**Programming Languages:** Python, C/C++ **Professional Software:** Git, LaTeX, SQL

#### Hobbies and Interests

Football, member of student football team

Basketball

Teaching, preparing schoolchildren for olympiads

# Publications

- 2. M. Safaryan, R. Islamov, X. Qian, P. Richtárik. FedNL: Making Newton-Type Methods Applicable to Federated Learning, accepted to FL-ICML 2021 and BFOM-ICML 2021 workshops, arXiv preprint: arXiv:2106.02969, 2021.
- 1. R. Islamov, X. Qian, P. Richtárik. Distributed Second Order Methods with Fast Rates and Compressed Communication, In Proc. of 38th International Conference on Machine Learning, 2021.

SCHOLARSHIPS, HONORS AND AWARDS	
Increased State Academic Scholarship Given for 4 year Bachelor and Master students at MIPT with scientific achievements 11 000 Russian rubles per month	Sept. 2020 – June 2021
Prizewinner of Student Olympiad in Maths "I am professional" Student Olympiad organized by Yandex and MIPT	Apr. 2020
Abramov scholarship Given for 1-3 year Bachelor students with the best grades at MIPT 12 000 Russian rubles per month	Sept. 2017 – June 2020
Prizewinner of Final Round of All-Russian Physics Olympiad	Apr. 2016
Participant of Final Round of All-Russian Physics Olympiad	2015, 2017
Talks and Posters	
Prerecorded talk at Beyond first-order methods in ML systems workshop, Links: video	24 July, 2021
<b>Poster</b> at International Workshop on Federated Learning for User Privacy and Data Confidentiality, Links: poster	24 July, 2021
Poster and Prerecorded Talk at International Conference on Machine Learning, Links: video, poster	22 July, 2021
Poster at PRAIRIE/MIAI AI Summer School, Links: poster	6 July, 2021
Talk at Maths & AI: MIPT-UGA young researchers workshop, Links: video, slides	1 July, 2021
Prerecorded talk at KAUST Conference on Artificial Intelligence, Links: video	28 April, 2021
Poster at NSF-TRIPODS Workshop on Communication Efficient Distributed Optimization, Links: poster	9 April, 2021
Research Visits and Internships	
Internship at Machine Learning and Optimization Lab KAUST Supervisor: Peter Richtárik	Jul. 2020 – Dec. 2020 Thuwal, Saudi Arabia
Internship at Machine Learning and Optimization Lab	Mar. 2020 – Aug. 2020
KAUST	Thuwal, Saudi Arabia
Supervisor: Peter Richtárik	ziianai, saadi iii asii
Summer Schools	
PRAIRIE/MIAI AI Summer School, Links: certificate	5-9 July, 2021