

# Rustem Islamov

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## EDUCATION

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### Master of Science in Applied Mathematics and Physics

[Moscow Institute of Physics and Technology](#)

Sept. 2021 – Pres.

Dolgoprudny, Russia

### Master of Science in Applied Mathematics

[Institut Polytechnique de Paris](#)

Sept. 2021 – Pres.

Palaiseau, France

### Bachelor of Science in Applied Mathematics and Physics

[Moscow Institute of Physics and Technology](#)

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

Sept. 2017 – July 2021

Dolgoprudny, Russia

## RESEARCH INTERESTS

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Machine Learning, Optimization, Distributed Optimization

## PROJECTS AND EXTRA ACTIVITIES

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### 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](#) (in Russian)

### 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

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**Russian:** Native

**English:** Advanced (C1)

**French:** Elementary (A1)

## TECHNICAL SKILLS

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**Operating Systems:** Microsoft Windows, Linux

**Programming Languages:** Python, C/C++

**Professional Software:** Git, LaTeX, SQL

## HOBBIES AND INTERESTS

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Football, member of student football team

Basketball

Travelling, hiking, photo shooting

## PUBLICATIONS

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4. [R. Islamov, X. Qian, S. Hanzely, M. Safaryan, P. Richtárik. Distributed Newton-Type Methods with Communication Compression and Bernoulli Aggregation, arXiv:2206.03588, 2022.](#)
3. [X. Qian, R. Islamov, M. Safaryan, P. Richtárik. Basis Matters: Better Communication-Efficient Second Order Methods for Federated Learning, in Proc. of the 25th International Conference on Artificial Intelligence and Statistics, 2021.](#)
2. [M. Safaryan, R. Islamov, X. Qian, P. Richtárik. FedNL: Making Newton-Type Methods Applicable to Federated Learning, In Proc. of 39th International Conference on Machine Learning, 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

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| <b>Scholarship in Belotserkovsky O. M. name</b><br>Given to support students who are actively engaged in research and Olympiad activities in the field of Computer Science; 15 000 Russian roubles per month | Feb. 2022 – June 2022  |
| <b>Increased State Academic Scholarship</b><br>Given for 4 year Bachelor and Master students at MIPT with scientific achievements; 16 000 Russian roubles per month  | Feb. 2022 – June 2022<br>Sept. 2021 – Jan. 2022<br>Feb. 2021 – June 2021<br>Sept. 2020 – Jan. 2021 |
| <b>Scholarship for Contribution to the Development of Numerical Optimization Methods</b><br>8 000 Russian roubles per month  | Feb. 2022 – June 2022<br>Sept. 2021 – Jan. 2022  |
| <b>Forecsys Research Scholarship</b><br>20 000 Russian roubles per month   | Sept. 2021 – Jan 2022  |
| <b>PhD Track Excellence Scholarship</b><br>The Institut Polytechnique de Paris awards merit-based excellence scholarships for students enrolled in PhD tracks; 1000 Euro per month                           | Sept. 2021 – Mar. 2022   |
| <b>Prizewinner of Student Olympiad in Maths</b><br>“I am professional” Student Olympiad organized by Yandex and MIPT   | Apr. 2020  |
| <b>Abramov scholarship</b><br>Given for 1-3 year Bachelor students with the best grades at MIPT; 12 000 Russian rubles per month   | Sept. 2017 – June 2020   |
| <b>Prizewinner of Final Round of All-Russian Physics Olympiad</b>  | Apr. 2016  |
| <b>Participant of Final Round of All-Russian Physics Olympiad</b>  | 2015, 2017   |

## TALKS AND POSTERS

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| <b>Poster</b> at <a href="#">International Conference on Artificial Intelligence and Statistics</a> ,<br>Links: <a href="#">poster</a>                        | 29 March, 2022 |
| <b>Prerecorded Talk</b> at <a href="#">Beyond first-order methods in ML systems workshop</a> ,<br>Links: <a href="#">video</a>                                | 24 July, 2021  |
| <b>Poster</b> at <a href="#">International Workshop on Federated Learning for User Privacy and Data Confidentiality</a> , Links: <a href="#">poster</a>       | 24 July, 2021  |
| <b>Poster and Prerecorded Talk</b> at <a href="#">International Conference on Machine Learning</a> ,<br>Links: <a href="#">video</a> , <a href="#">poster</a> | 22 July, 2021  |
| <b>Poster</b> at <a href="#">PRAIRIE/MIAI AI Summer School</a> , Links: <a href="#">poster</a>  | 6 July, 2021   |
| <b>Talk</b> at <a href="#">Maths &amp; AI: MIPT-UGA young researchers workshop</a> , Links: <a href="#">video</a> , <a href="#">slides</a>                    | 1 July, 2021   |
| <b>Prerecorded Talk</b> at <a href="#">KAUST Conference on Artificial Intelligence</a> , Links: <a href="#">video</a>   | 28 April, 2021 |
| <b>Poster</b> at <a href="#">NSF-TRIPODS Workshop on Communication Efficient Distributed Optimization</a> , Links: <a href="#">poster</a>                     | 9 April, 2021  |

## RESEARCH VISITS AND INTERNSHIPS

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### **Internship at Machine Learning and Optimization Lab**

[EPFL](#), Supervisors: [Hadrien Hendrikx](#), [Martin Jaggi](#)

Apr. 2022 – Pres.

Lausanne, Switzerland

### **Internship at Optimization and Machine Learning Lab**

[KAUST](#), Supervisor: [Peter Richtárik](#)

Mar. 2021 – Aug. 2021

Thuwal, Saudi Arabia

### **Internship at Optimization and Machine Learning Lab**

[KAUST](#), Supervisor: [Peter Richtárik](#)

Jul. 2020 – Dec. 2020

Thuwal, Saudi Arabia

## SUMMER SCHOOLS

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[PRAIRIE/MIAI AI Summer School](#), Links: [certificate](#)

5-9 July, 2021

Last updated on May 23<sup>rd</sup> 2022