

Rustem Islamov

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EDUCATION

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

[Insitut 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

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](#) (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

Russian: Native

English: Advanced (C1)

French: 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

3. **X. Qian, R. Islamov, M. Safaryan, P. Richtárik. Basis Matters: Better Communication-Efficient Second Order Methods for Federated Learning**, arXiv preprint: [arXiv:2111.01847](https://arxiv.org/abs/2111.01847), 2021, accepted to AISTATS 2022.
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](https://arxiv.org/abs/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

Scholarship for Contribution to the Development of Numerical Optimization Methods 7 000 Russian roubles per month	Sept. 2021 – Jan. 2022
Forecsys Research Scholarship 20 000 Russian roubles per month	Sept. 2021 – Jan 2022
Increased State Academic Schholarship 16 000 Russian roubles per month	Sept. 2021 – Jan. 2022
PhD Track Excellence Scholarship The Institut Polytechnique de Paris awards merit-based excellence scholarships for students enrolled in PhD tracks 1000 Euro per month	Sept. 2021 – Pres.
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
Poster 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 KAUST , Supervisor: Peter Richtárik	Mar. 2020 – Aug. 2020 Thuwal, Saudi Arabia

Last updated on December 18th 2021