Rustem Islamov

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EDUCATION

Master of Science in Applied Mathematics and Physics Sept. 2021 – Pres.
Moscow Institute of Physics and Technology Dolgoprudny, Russia

Master of Science in Applied Mathematics Sept. 2021 – Pres.
Institut Polytechnique de Paris Palaiseau, France

Bachelor of Science in Applied Mathematics and Physics Sept. 2017 – July 2021
Moscow Institute of Physics and Technology Dolgoprudny, Russia
GPA: 4.96/5 (9.27/10), Top 3 at the department

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
Travelling, hiking, photo shooting

PUBLICATIONS

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**, 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

Scholarship in Belotserkovsky O. M. name	Feb. 2022 – June 2022
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	
Increased State Academic Scholarship	Feb. 2022 – June 2022
Given for 4 year Bachelor and Master students at MIPT with scientific achievements;	Sept. 2021 – Jan. 2022
16 000 Russian roubles per month	Feb. 2021 – June 2021
	Sept. 2020 – Jan. 2021
Scholarship for Contribution to the Development of Numerical Optimization Methods	Feb. 2022 – June 2022
	Sept. 2021 – Jan. 2022
8 000 Russian roubles per month	
Forecsys Research Scholarship	Sept. 2021 – Jan 2022
20 000 Russian roubles per month	
PhD Track Excellence Scholarship	Sept. 2021 – Mar. 2022
The Institut Polytechnique de Paris awards merit-based excellence scholarships for students enrolled in PhD tracks; 1000 Euro per month	
Prizewinner of Student Olympiad in Maths	Apr. 2020
"I am professional" Student Olympiad organized by Yandex and MIPT	
Abramov scholarship	Sept. 2017 – June 2020
Given for 1-3 year Bachelor students with the best grades at MIPT; 12 000 Russian rubles per month	
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

Poster at International Conference on Artificial Intelligence and Statistics, Links: poster	29 March, 2022
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 Apr. 2022 – Pres.
EPFL, Supervisors: Hadrien Hendrikx, Martin Jaggi Lausanne, Switzerland
Internship at Optimization and Machine Learning Lab Jul. 2020 – Dec. 2020
KAUST, Supervisor: Peter Richtárik Thuwal, Saudi Arabia
Internship at Optimization and Machine Learning Lab Mar. 2020 – Aug. 2020
KAUST, Supervisor: Peter Richtárik Thuwal, Saudi Arabia

Summer Schools

PRAIRIE/MIAI AI Summer School, Links: certificate 5-9 July, 2021

Last updated on May 3$^{\text{rd}}$ 2022