ELNUR GASANOV

elnur.gasanov@kaust.edu.sa ⋄ http://elnurgasanov.com

EDUCATION

Ph.D. in Machine Learning and Optimization Jan. 2020 - Present
King Abdullah University of Science and Technology
Supervised by Peter Richtárik

Master of Science in Computer Science Sep. 2018 - Dec. 2019
King Abdullah University of Science and Technology
GPA: 3.67/4.00

Bachelor of Science in Applied Mathematics and Physics Sep. 2014 - Jun. 2018
Moscow Institute of Physics and Technology (State University)
Average Grade: 8.66/10.00

PUBLICATIONS

Peter Richtárik, Igor Sokolov, Elnur Gasanov, Ilyas Fatkhullin, Zhize Li, Eduard Gorbunov, 3PC: Three Point Compressors for Communication-Efficient Distributed Training and a Better Theory for Lazy Aggregation, submitted to a conference

Elnur Gasanov, Ahmed Khaled, Samuel Horvath, Peter Richtárik, FLIX: A Simple and Communication-Efficient Alternative to Local Methods in Federated Learning, AISTATS 2022

Dmitry Kovalev, Elnur Gasanov, Alexander Gasnikov, Peter Richtárik, Lower Bounds and Optimal Algorithms for Smoothand Strongly Convex Decentralized Optimization Over Time-Varying Networks, NeurIPS 2021

Grigory Malinovsky, Dmitry Kovalev, Elnur Gasanov, Laurent Condat, Peter Richtárik, From Local SGD to Local Fixed-Point Methods for Federated Learning, ICML 2020

Dmitry Kovalev, Eduard Gorbunov, Elnur Gasanov, Peter Richtárik, Stochastic Spectral and Conjugate Descent Methods, NeurIPS 2018

Elnur Gasanov, Anastasia Motrenko, Creation of approximating scalogram description in a problem of movement prediction, Machine Learning and Data Analysis, Vol. 3, #2, 2017

RESEARCH INTERNSHIPS

Visiting scholar June 2019 - July 2019
University of Grenoble-Alpes, Laboratory Jean Kuntzmann
Supervised by Prof. Jerome Malick and postdoctoral fellow Franck Lutzeler, I worked on an asynchronous lock-free algorithm, derived convergence rates for full and stochastic gradient cases. For the second case, I analyzed the algorithm for both constant and diminishing stepsizes.

HONORS AND REWARDS

Enlarged state academic scholarship, 2017-2018
Abramov fund excellence scholarship, 2014-2017
Governor's award, 2012-2014
Prize-winner of All-Russia Physics Olympiad (Regional step, Moscow region, 2012 - 2014)
Prize-winner of All-Russia Maths Olympiad (Regional step, Moscow region, 2012, 2014)
Prize-winner of All-Russia Economics Olympiad (Regional step, Moscow region), 2013
Prize-winner of competition "Future Scientists" (Moscow), physics section

CO-CURRICULAR COURSES AND ACTIVITIES

Deep Learning Nanodegree, Udacity, 2019

- Topics covered: PyTorch, Convolutional and Recurrent Neural Networks, GAN, Deployment using AWS
- Taught by Ian Goodfellow, Mat Leonard, Cezanne Comacho

Seminar Co-organizer, All hands meetings on Big Data Optimization, September 2019 - Present

- Co-organizer of a group seminar

SKILLS

Mathematics	Linear Algebra, Theory of Algorithms, Machine Learning, Deep Learning
Programming	C++, Python (NumPy, Matplotlib, PyTorch, Pandas), Matlab, Golang
Tools	MS Office, LaTeX, SQL Server
Languages	Russian C2, English C1

EXTRA CURRICULARS AND HOBBIES

Hobbies: Fitness, Volleyball
Volunteer: National Park Hunsrueck II, Deuselbach, Germany, 2017
Volunteer: Environment and Legality at Vesuvio National Park, Ottaviano, Italy, 2016
Volunteer: University "5top100" conference, 2016
Volunteer: Promoting Biodiversity in Neckertal, Brunnadern SG, Switzerland, 2015