

# Dmitry Grishchenko

Male, 24 July 1994, Russian

✉ mgrishchenko57@gmail.com • 🌐 grishchenko.org

*Looking for: Data Scientist, Operations Research Engineer,  
Software Engineer*

## Education

### Université Grenoble Alpes

*Ph.D. in Applied Mathematics*

**Subject:** Distributed Optimization for Large-Scale Problems

**Supervisors:** F. lutzeler (UGA), M.-R. Amini (UGA), J. Malick (CNRS and LJK)

**Grenoble**

Oct. 2017 – Nov. 2020

### Higher School of Economics

*M.Sc. in Applied Mathematics*

**Thesis:** Minimal Mutual Information Model Problem

**Supervisor:** A. Gasnikov (MIPT)

**Moscow**

Sept. 2015 – June 2017

### Higher School of Economics

*B.Sc. in Mathematics*

**Thesis:** Lattices, Sphere Packing and Number Theory

**Supervisor:** A. Zykin (HSE)

**Moscow**

Sept. 2011 – June 2015

## Publications

**D. Grishchenko**, F. lutzeler, and M.-R. Amini

*Sparse Asynchronous Distributed Learning*

**ICONIP 2020**

**Conference**

2020

G. Bareilles, Y. Laguel, **D. Grishchenko**, F. lutzeler, J. Malick

*Randomized Progressive Hedging methods for Multi-stage Stochastic Programming*

**ANOR**

**Toolbox + Journal**

2020

**D. Grishchenko**, F. lutzeler, and J. Malick

*Proximal Gradient Methods with Adaptive Subspace Sampling*

**MOOR**

**Journal**

2019

A. Ivanova, D. Pasechnyuk, **D. Grishchenko**, E. Shulgin, A. Gasnikov

*Adaptive Catalyst for Smooth Convex Optimization*

**Preprint**

2019

**D. Grishchenko**, F. lutzeler, J. Malick, and M.-R. Amini

*Asynchronous Distributed Learning with Sparse Communications and Identification*

To appear in **SIMODS**

**Journal**

2018

F. Hanzley, J. Konecny, N. Loizou, P. Richtarik, **D. Grishchenko**

*A Privacy Preserving Randomized Gossip Algorithm via Controlled Noise Insertion*

**PPML NeurIPS 2018**

**Workshop**

2018

F. Hanzley, J. Konecny, N. Loizou, P. Richtarik, **D. Grishchenko**

*Privacy Preserving Randomized Gossip Algorithms*

**Preprint**

2017

**D. Grishchenko**

*Origami: What One Can Get via Paper Folding (Rus)*

**Matematicheskoye Prosveshcheniye**

**Journal**

2013

## Working Experience

---

### Yandex

Senior Software Engineer

Taxi-graph team

SQL-like data analysis, developing drivers' positions predictions, creating quality metrics

Moscow

Nov. 2021 – Now

### Huawei

Senior Algorithm Engineer (Team Leader)

PCB design software

Leading the Layout PCB team. Writing the geometrical library on C++.

Moscow

Feb. 2021 – Nov. 2021

### Huawei (as contractor)

Senior Engineer

PCB design software

Writing the geometrical library on C++.

Moscow

Aug. 2020 – Feb. 2021

### Altium

Software Developer

PCB design software

Writing the topological tracer library on C++. Establishing and maintaining geometric library. Working with Boost C++ library, unit-tests.

Moscow

Jan. 2016 – Sept. 2017

### Citibank

Intern in Decision Management Unit

Help in creating new products passports

Maintaining an online passports creator via MS Sharepoint and SQL.

Moscow

July 2014 – Feb. 2015

### The Tournament of Towns

Mathematical Olympiad Works Inspector

Check the correctness of the solutions

Reading and assessing the works of the high school students.

Moscow

Oct. 2011 – May 2015

## Certificates

---

### Algorithmic Toolbox

Coursera

2016

An online non-credit course authorized by University of California, San Diego and Higher School of Economics and offered through Coursera.

## Summer Schools and Research Visits

---

Research Visit; Adviser: P. Richtarik

KAUST, Thuwal

2019

ICCOPT 2019 Summer School

Berlin

2019

Mini-cours "optimisation et apprentissage: applications en vision"

Autrans

2018

Research Visit; Adviser: P. Richtarik

KAUST, Thuwal

2017

## Languages

---

Russian: Native

English: Fluent

**French:** Basic

## Teaching Experience

---

**Université Grenoble Alpes**

**Grenoble**

*Teaching assistant*

*Sept. 2018 – May 2020*

- 2019–2020
  - Matrix Analysis and Numerical Optimization (20h)
  - Optimisation Numérique (30h)
- 2018–2019
  - Matrix Analysis and Numerical Optimization (20h)
  - Convex and Distributed Optimization (20h)
  - Optimisation Numérique (20h)

## Programming skills

---

**C++:** STL, Boost

**Python:** numpy, spark, mpi4py, scipy,...

**other:** Julia,  $\text{\LaTeX}$ , Markdown

## Presentations

---

Conferences and Workshops.....

**MOTOR 2021**

**online**

[Talk](#)

*2021*

Proximal Gradient Methods with Adaptive Subspace Sampling

**ICONIP 2020**

**online**

[Talk](#)

*2020*

Sparse Asynchronous Distributed Learning

**ICCOPT 2019**

**Berlin**

[Talk](#)

*2019*

Identification-Based First-Order Algorithms for Distributed Learning

**SPARS 2019**

**Toulouse**

[Poster](#)

*2019*

Distributed First-Order Optimization with Tamed Communications

**OSL 2019**

**Les Houches**

[Poster](#)

*2019*

Identify and Sparsify: Distributed Optimization with Asynchronous Moderate Communications

**ISMP 2018**

**Bordeaux**

[Talk](#)

*2018*

Distributed Optimization with Sparse Communications and Structure Identification

**Grenoble Optimization Days 2018**

**Grenoble**

[Talk](#)

*2018*

Distributed Optimization with Sparse Communications and Structure Identification

**Journées SMAI-MODE 2018**

**Autrans**

[Poster](#)

*2018*

Distributed Optimization with Sparse Communications

<b>59<sup>th</sup> MIPT scientific conference</b>	<b>Moscow</b>
<i>Talk</i>	2016
Solving of Minimal Mutual Information Model Problem via Regularization of Dual Problem and Using Ellipsoid Method with Inexact Oracle	
<b>Other</b> .....	
<b>Ph.D. defence</b>	<b>Grenoble</b>
<i>Talk</i>	2020
Proximal Optimization with Automatic Dimension Reduction for Large Scale Learning.	
<b>Grenoble Optimization Reading Group</b>	<b>Grenoble</b>
<i>Talk</i>	2019
Accelerated Distributed Optimization with Asynchronous Moderate Communications	
<b>DAO team seminar</b>	<b>Grenoble</b>
<i>Talk</i>	2019
Identify and Sparsify: Distributed Optimization with Asynchronous Moderate Communications	
<b>Demi-journée des doctorants 2018</b>	<b>Grenoble</b>
<i>Talk</i>	2018
Randomized Proximal Algorithm with Automatic Dimension Reduction	

## Scholarships and Grants

---

### PGMO - PRMO

*Distributed Optimization on Graphs with Flexible Communications, 5k euro* 2019-2020  
 Together with F. lutzeler (LJK, Grenoble)

## Hobbies

---

In free time I like to solve different [logic puzzles](#). I was a member of Russia main team in the World Championships 2016 – 19. Winner of two Russian Puzzles Championships 2015, 2017, Moscow Cup 2017, and CIS Puzzles Championship 2018. I am also interested in playing Russian and International checkers, where I achieved the title of Candidate Master of Sports. I also like hiking, snowboarding, swimming, and playing football and basketball.