Ostroukhov Petr
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EDUCATION

Moscow Institute of Physics and Technology (MIPT)   **Moscow, Russia**
PhD in Computer Science   *Sep 2019 – Present*
Adviser: Alexander Gasnikov

Moscow Institute of Physics and Technology (MIPT)   **Moscow, Russia**
MSc in Applied Mathematics and Physics   *Sep 2017 – Jul 2019*
Adviser: Konstanin Vorontsov
Thesis: *Pretrained topical word embeddings*
Main courses: Machine Learning, Natural Language Processing, Deep Learning

Moscow Institute of Physics and Technology (MIPT)   **Moscow, Russia**
BSc in Applied Mathematics and Information Science   *Sep 2013 – Jul 2017*

RESEARCH & WORK EXPERIENCE

Mohamed bin Zayed University of Artificial Intelligence   **Abu-Dhabi, UAE**
Research Assistant   *Oct 2022 – Present*

Laboratory of Advanced Combinatorics and Network Applications, MIPT   **Moscow, Russia**
Junior Research Scientist   *Mar 2022 – Present*

Laboratory of Advanced Combinatorics and Network Applications, MIPT   **Moscow, Russia**
Engineer   *Mar 2021 – Mar 2022*

- developed theoretical project about high-order optimization methods for strongly-convex-strongly-concave saddle point problems and strongly-monotone variational inequalities
- developed theoretical project about high-order optimization methods for min-min type of problems

Sector 7 at Institute for Information and Transmission Problems   **Moscow, Russia**
Research Intern   *Mar 2021 – Present*

Stack: Python, graph-tool, Git, LATEX
- working on Digital Signal Processing project

MIPT   **Moscow, Russia**
Teaching assistant on Applied Statistics course   *Feb 2020 – Jun 2020*

Antiplagiat   **Moscow, Russia**
Junior Research Engineer in Natural Language Processing   *May 2019 – Nov 2020*
Stack: Bash, Git, Python, Scrapy, PyTorch, FairSeq, LATEX
- developed an experimental search engine for plagiarism detection in foreign languages documents
- worked on project of detection and parsing of document references
- implemented a system of multilingual machine translation for low-resource languages
- wrote popular article about hyperparameter optimization to russian Computer Science resource Habr (link)

Laboratory of Information Technologies and Applied Mathematics, MIPT   **Moscow, Russia**
Intern   *May 2016 – May 2017*
Stack: C++, Qt, Boost
- worked on experimental geographic informational system (GIS)

PUBLICATIONS

1. *Tensor methods inside mixed oracle for min-min problems* (Computer Research and Modeling, 2022, link)
   Petr Ostroukhov
2. *Tensor methods for strongly convex strongly concave saddle point problems and strongly monotone variational inequalities* (Computer Research and Modeling, 2022, link)
   Petr Ostroukhov, Rinat Kamalov, Pavel Dvurechensky, Alexander Gasnikov
3. *Self-Concordant Analysis of Frank-Wolfe Algorithms* (ICML, 2020, link)
   Pavel Dvurechensky, Petr Ostroukhov, Kamil Safin, Shimrit Shtern, Mathias Staudigl
4. *Fake News Spreader Detection using Neural Tweet Aggregation* (CLEF, 2020, link)
   Oleg Bakhteev, Aleksandr Ogaltsov, Petr Ostroukhov
5. *Near-optimal tensor methods for minimizing the gradient norm of convex function* (Preprint, 2019, link)
   Pavel Dvurechensky, Petr Ostroukhov, Alexander Gasnikov, César A. Uribe, Anastasiya Ivanova

CONFERENCES, WORKSHOPS AND TALKS

Quasilinear Equations, Inverse Problems and Their Applications **Sochi, Russia**
Conference talk *Aug 2022*
Title: *Tensor methods inside mixed oracle for min-min problems*

Conference 'Optimization Without Borders' **Sochi, Russia**
Prerecorded conference talk (link) *Jul 2021*
Title: *Tensor methods for strongly convex strongly concave saddle point problems and strongly monotone variational inequalities*

63-rd MIPT Scientific Conference **Moscow, Russia**
Conference talk *Nov 2020*
Title: *Tensor methods for solving strongly monotone variational inequalities*

Beyond First Order Methods in ML Systems Workshop at ICML **Online**
Accepted paper (link) *Jul 2020*
Title: *Near-optimal tensor methods for minimizing the gradient norm of convex functions*

Quasilinear Equations, Inverse Problems and Their Applications **Moscow, Russia**
Conference talk *Dec 2019*
Title: *Tensor methods for minimizing the objective gradient norm*

SCHOLARSHIPS

Andrei M. Raigorodski Scholarship in Optimization **Moscow, Russia**
Third order scholarship *Jan 2021 – Jun 2021*
Andrei M. Raigorodski Scholarship in Optimization **Moscow, Russia**
  Sep 2021 – Dec 2021
Andrei M. Raigorodski Scholarship in Optimization **Moscow, Russia**
  Jan 2022 – Jun 2022

ADDITIONAL

- Languages: Russian – Native, English – Fluent, French – Basic, Spanish – Basic
- Hobbies: Movies, Snowboarding, Basketball, Running, Computer games