

Daniil Merkulov

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EDUCATION

MOSCOW INSTITUTE OF PHYSICS AND TECHNOLOGY

APPLIED MATH AND PHYSICS

BSc (2015)

MSc (2017)

SKOLKOVO INSTITUTE OF SCIENCE AND TECHNOLOGY

DATA SCIENCE

MSc (2017)

COURSEWORK

GRADUATE

Advanced Machine Learning

Numerical Linear Algebra

Graphical Models of Statistical Inference

Image Processing

Dynamic Systems and Control

Convex Optimization for Data Science

UNDERGRADUATE

Applied Statistics

Model Selection

Machine Learning

Optimization

Information Theory

SKILLS

PROGRAMMING

Proficient:

Python • \LaTeX • TensorFlow • Matlab • Linux

Familiar:

C • SimuLink • HTML • Mathematica • R • Octave • Qt

LANGUAGES

English

Advanced

Russian

Native Speaker

German

Basic Knowledge

CONFERENCES

INTERNATIONAL SYMPOSIUM ON MATHEMATICAL PROGRAMMING | TALK

2015, July | Pittsburgh, USA

Stochastic Online Optimization with Noisy First Order Oracle

QUASILINER EQUATIONS, INVERSE PROBLEMS AND THEIR APPLICATIONS | TALK

2015, Sep | Moscow, Russia

Applying Stochastic Optimization with noisy oracle to bandit learning and SLT

RESEARCH

STOCHASTIC ONLINE OPTIMIZATION WITH NOISY FIRST ORDER ORACLE SUPERVISOR: ALEXANDER GASNIKOV

Bachelor Thesis

ERM problem with noisy first order oracle was considered. Corresponding theorem about mirror descent convergence in stochastic online context with inexact oracle was investigated. All estimations are unimprovable up to a logarithmic factor.

GENERALIZATION ABILITY OF MACHINE LEARNING MODELS: EXPERIMENTAL STUDY SUPERVISOR: IVAN OSELEDETS

Master Thesis

This study was focused on investigating properties and neighborhood of critical points of loss surfaces of neural networks, which demonstrate remarkably low train loss and extraordinary high test loss at the same time.

EXPERIENCE

SKOLKOVO INSTITUTE OF SCIENCE AND TECHNOLOGY |

RESEARCH INTERN

August 2017 – present | Moscow

- Tensor networks and deep learning for applications in data mining

LAB. OF STRUCT. METHODS OF DATA ANALYSIS IN PREDICTIVE MODELING | RESEARCH INTERN

March 2015 – December 2015 | Moscow

- Stochastic Optimization, worked under the guidance of Prof. A. Gasnikov

INSTITUTE FOR INFORMATION TRANSMISSION PROBLEMS RAS | RESEARCH INTERN

April 2014 – June 2014 | Moscow

- Studying Coding theory, Finite Fields Algebra, Signal Processing

AWARDS

2016 Increased State Academic Scholarship

2014 Diploma Winner in Radiotechnical Tournament at MIPT

2013 Moscow Government Scholarship

2012 Moscow Region Government Scholarship

2011 Prizewinner of International Mathematics Tournament of Towns