

# Zaur Datkhuzhev

MACHINE LEARNING ENGINEER · DATA SCIENTIST

Moscow, Russia

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## Education

### Moscow Institute of Physics and Technology

Moscow, Russia

MASTER'S DEGREE IN MACHINE LEARNING AND DATA SCIENCE

Sept. 2020 - Aug. 2022

- Department of Innovation and High Technology.
- **Thesis:** Quantization of Image-to-Image Neural Networks.

### Moscow Institute of Physics and Technology

Moscow, Russia

BACHELOR IN APPLIED MATHEMATICS AND COMPUTER SCIENCE

Sept. 2016 - Aug. 2020

- Department of Innovation and High Technology.
- **Thesis:** Transfer Learning Between Reinforcement Learning Environments via Distillation.

## Experience

### Huawei

Moscow, Russia

DEEP LEARNING RESEARCH ENGINEER

Apr. 2020 - Present

- Provided a comprehensive overview of state-of-the-art (SOTA) methods in the field of Low-bit NN and Transformer Quantization (Compression), which helped my team to define proper research direction.
- Improved existing quantization algorithms on Automatic Speech Recognition using Transformer architectures, achieved new SOTA results for 2-bit and 4-bit Transformer quantization.
- Managed 2 people of the same age and led them to the project goal achievement.
- Performed SOTA overview in the field of Automatic NN Quantization.
- Deployed a Reinforcement Learning algorithm for automatic mixed-precision quantization.
- Constantly provided support to my colleagues and teammates.

### Deep Learning School

Moscow, Russia

TEACHER

Sept. 2018 - May. 2019

- Gave lessons to 100 high school students every week.
- Taught them python tools for data science (NumPy, Pandas, Matplotlib), linear algebra (Matrix calculus), machine learning (Linear models), deep learning (MLP, CNN, RNN).

## Skills

**Languages** English (B2 Upper intermediate) · Russian (Native) · Adyghe (Native) · Spanish (A1 Beginner)

**Coding** Python · C++ · LaTeX

**ML and DL** Tensorflow 2 · Pytorch · Sklearn · Scipy · Plotly · Albumentations

**Big Data** SQL · HDFS · MapReduce · Hive · Spark · Kafka

**DevOps** Docker · Gitlab CI/CD

**Other** Jupyter · Linux · Bash · Git · SSH

## Relevant Courses

**YSDA** Computer vision · Practical RL · Bayesian methods · Python · NLP

**MIPT** Algorithms and data structures · Machine Learning · Advanced Topics in Deep Reinforcement Learning · Big Data

**Coursera** Introduction to Deep Learning · How to Win a Data Science Competition

## Honors & Awards

### DOMESTIC

2021 **Winner**, Huawei Moscow Research Center President Award

Moscow, Russia

2016 **Winner**, Russian Olympiad in Math "Phystech"

Moscow, Russia

2016 **Finalist**, All-Russian Mathematical Olympiad

Moscow, Russia

2015 **Finalist**, All-Russian Mathematical Olympiad

Moscow, Russia