

# KROO DMITRY

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## EDUCATION

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**Moscow Institute of Physics and Technology (MIPT)**

*2018 - Present*

BSc in Applied Mathematics and Computer Science

– *Top-1 russian university* in Computer Science (THE University Rankings) with intensive training in mathematics, algorithms and data science.

– *Relevant Courses:* Probability Theory, Mathematical Statistics, Basics of Applied Statistics, Python, Object-Oriented Programming on C++, Algorithms and Data Structures

## WORK EXPERIENCE

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**Huawei Russian Research Institutes**

*Jul 2020 - Dec 2020*

*Junior Engineer (Point Cloud Compression)*

- Got familiar with existing Python codec testing codebase and developed a remote test monitoring system under company's strict network regulations.
- Learned basic methods of lossless compression and their use in PCC. Explored Google Draco and MPEG TMC13 C++ code and compression/decompression pipelines, wrote testing scripts for Draco, ran tests and analyzed results.
- Developed an prediction algorithm for raw LiDAR data compression, which provided more than 2x reduction in size. Experimented with data representations for subsequent entropy compression.

## SKILLS

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**Programming Languages:** Python, C++, SQL

**ML & Data Analysis:** NumPy, Pandas, SciPy, Statsmodels, SciKit-Learn, Matplotlib and others

**Databases:** Postgres, Greenplum

**Other Software:** git, Linux, PowerShell, MS Office, LaTeX, Photoshop, SketchUp

**Languages:** Russian (Native), English (B2)

## ACHIEVEMENTS

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- 1st prize in **Kurchatov Olympiad in Mathematics**, 2018
- 2nd prize in **Moscow Mathematical Olympiad** and other math olympiads, 2018
- Finalist on **Unilever Chain Reaction Hack**, 2019
- Winning team on **MIPT Endowment Fund Hackathon** (1st out of 6 teams), 2020
- Finalist / Top 50 of ~ 3000 participants on **Yandex.Cup** (Analytics), 2020

## ACADEMIC INTERESTS

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Algorithm Theory, Machine Learning, 3D Programming

## OTHER ACADEMIC ACTIVITIES

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Deeplearning.AI Tensorflow Developer Certificate (*online on Coursera*)

"Data Science in Consulting" by McKinsey&Company (*offline course*)

Attended RAII Summer School on Artificial Intelligence 2019