#### CONTACT



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Margarita Sharkova

#### **KEY SKILLS**

Deep Learning

**Machine Learning** 

Reinforcement Learning

**Biomedical Imaging and Analytics** 

Models of Sequential Data

Algorithms and data structures

#### **TECHNICAL SKILLS**

#### **Programming**

Python, Bash, SQL

### **Big Data**

Hive, Spark, HDFS, Kafka, Oracle

#### Visualisation

matplotlib, plotly, bokeh, MLflow, TensorBoard ...

# Data handling/analysis

numpy, scipy, pandas, statsmodels ...

# DL / ML frameworks

PyTorch, Keras / LightGBM, XGBoost, CatBoost, Scikit-learn

#### Instruments

git, gitlab, Confulence, Jira, LaTeX

### ADDITIONAL INFORMATION

- Skolkovo scholarship for excellent performance (top 5% out of 250 students)
- Best Skolkovo HackLab Speaker 2020
- Price places on hackathons and case championships from Tinkoff, Sber, AstraZeneca, Gazpromneft

# **WORK HISTORY**

#### **Severstal Digital**

Middle Data Scientist

August 2021 - today

- Developed new ML-based recommendation system, that reduces pauses on steel rolling mill by automatically modifying technology of steel hot-rolling
- Applying Causal Inference for treatment effect prediction (temperature changing)
- Data capturing and analytics (EDA), customer negotiation, baseline solution establishment, development and deployment to production
- Time series data analysis and pattern recognition
- Uncertainty estimation for model confidence intervals evaluation
- Solution prototyping, deploy and maintaining developed model in production

#### **Digital Petroleum**

Junior Data Scientist

February 2020 - August 2021



- · Designed algorithms for automatically detection of drilling complications that lead to accidents and deployed into software
- Developed robust metrics to evaluate the success rate
- · Pattern capturing, anomaly detection in time-series data

#### **Schlumberger Moscow Research Center**

Research scientist

February 2021 - July 2021

- Part-time for 2 projects
- Development of methods to analyze noise logging and flow measurement data in purpose to recognize formation flow area
- Noise reduction, signal filtering and reconstruction

#### **GEONAFT**

GEONAFT PROPERTY

Machine learning intern

August 2020

· Working on project "Gamma-ray prediction based on mechanical features measured while drilling"

#### **Technology Development Center of the TATNEFT**



**Technician** June 2019 - July 2019 · Managing projects «Guided drilling», «Smart tracers», «LWD packages for geomechanical modelling»

- Well stock selection for testing, patent search for equivalent technologies
- preparing the calendar plan of the research and development / projects presentation

### **Gazpromneft Science Technology Centre**



Intern at the Department of Oil Production Technology

August 2018

• Working on project: «Gas Lift Optimization in Eastern area of the Orenburg gas condensate field»

#### **Gazprom Transgaz Yugorsk**



Processing units repair technician

August 2018

- Equipment maintenance and repair
- Working on thesis project «Development of the replacement technology of the running part of the supercharger on Novo-Ivdelskya Compression Station»

#### **EDUCATION**

# Skolkovo Institute of Science and Technology



Advanced Simulation and Data Science in Petroleum Industry,

Master's degree in Petroleum Engineering, GPA: 4.8 / 5

2019 - 2021

# Saint - Petersburg Mining University

Operation/maintenance of transportation and storage facilities for oil, gas and oil products, Bachelor's degree in Petroleum Engineering, GPA: 4.7 / 5

# COMPLETED PROJECTS

- "Generating Natural Language Adversarial Attacks"
- "k-space Deep Learning for Super-Resolution"
- "Mineralogical Classification of Scanning Electron Microscope and QEMSCAN Images"
- "Measuring PyTorch performance"
- "Mining interpretable patterns of accidents precursor from MWD data diploma project"
- "GR well logging prediction based on drilling data for Geonaft"
- "Uncertainty Estimation on Graphs" at Sirius University of Science and Technology
- "Data-driven optimization of the hot-rolled steel production technologies"