Anton Zakharenkov

MACHNINE LEARNING ENGINEER

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Moscow, relocation, remote

WHY ME

MSc in Computer Science and Kaggle Competitions Master. Focused on developing end-to-end pipelines for anomaly detection using Computer Vision and Time Series analysis. Have a passion for combining novel scientific research with actionable engineering implementations that enable new products and experiences.

WORK EXPERIENCE

Nov 2018 - Nov 2020 **Conundrum (Cambridge based startup)**
Computer Vision / Time Series / ML Engineer

- Built a system for visual defect assessment based on synthetic data, GANs and state of the art Computer Vision techniques.
- Developed several PyTorch models for deep unsupervised anomaly segmentation based on time series sensor data.
- Implemented various features in Conundrum Auto ML engine.
- Created more than 5 successful PoC Machine Learning models.

Oct 2017 - Nov 2018 **Sberbank (Financial services company)**
Big data / ML on graphs / Data Scientist

- Developed models for analyzing the client base of companies: life cycle, outflow, overflow and retention for SberAdviser app
- Created a competitor search algorithm for small businesses using topic modelling techniques and graph embeddings

Oct 2016 - May 2017 **Laboratory of experimental economics, MIPT**
Time Series / Research / Data Scientist

- Built a system for analyzing stabilografic time series data obtained as a result of economic experiments.
The analysis results have been published in several scientific

ACADEMIC RESEARCH

„Tropical geometry and neural networks"
Master Thesis, Higher School of Economics

- Created tropical algebra python framework; implemented conversion algorithms between ReLU neural networks and tropical rational functions; investigated decision boundary of ReLU networks from tropical perspective.
- Scientific adviser - PhD. Gleb Pogudin (École Polytechnique)

„Adaptive regularization in topic modeling"
Bachelor Thesis, Computing Centre of the Russian Academy of Science

- Applied methods of derrivative-free optimization, bayesian optimization and machine learning for automatic selection of regularization coefficients in ARTM model.
- Scientific adviser - Dr. Konstantin Vorontsov (Moscow Institute of Physics and Technology)

TECH SKILLS

Programming: Python · Bash · SQL · Scala
Research: PyTorch · LightGBM / CatBoost · NumPy / Pandas/ Scikit-learn · Jupyter
Big Data: Apache Spark · Hadoop
Deployment: Git · Docker · TensorRT

PERSONAL SKILLS

Soft Skills: Adaptability · Responsibility · Attention to detail
Problem-solving · Critical thinking · Teamworking · Mentoring

Languages: Russian Native
English Advanced, C1
German Beginner, A2
Polish Beginner, A1

EDUCATION

2018 - 2020 **Higher School of Economics**
Moscow, Russia
- MSc in Computer Science
- Specialization in Data Science

2013 - 2018 **Moscow Institute of Physics and Technology**
Moscow, Russia
- BSc in Applied Math and Physics
- Specialization in Data Science

2012 - 2013 **The Advanced Educational Scientific Center (faculty) – Kolmogorov's boarding school of Moscow State University**
Moscow, Russia

ACTIVITIES & COMPETITIONS

Kaggle Master of Competitions

- kaggle.com IEEE-CIS Fraud Detection
tabular data, binary classification, 18/6381, Top 1%

- kaggle.com Severstal: Steel Defect Detection
manufacturing, image data, segmentation 31/2431, Top 2%

- kaggle.com Santa's Workshop Tour 2019
combinatorial optimization, 43/1620, Top 3%

Otus.ru Teaching and Mentoring

Lecturer on the courses „Machine Learning" and „Advanced Machine Learning" on the education platform otus.ru