

Anton Zakharenkov

MACHINE LEARNING ENGINEER



+7 (985) 992-66-29
anton.zakharenkov@phystech.edu
linkedin.com/in/anton-zakharenkov
zachanton.github.io
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 - Present **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.
- Blog post - git.io/tropical-deep-learning
- 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 derivative-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