ALEKSEI SHABANOV

Machine learning engineer

@ alexey.shabanoff@gmail.com   📞 +7 (981) 711-82-02   ⓖ alekseysh   📍 Moscow, Russia

I am a machine learning engineer who strives to balance the complexity of research and the quality of the code.

WORK EXPERIENCE

Machine learning engineer
Neuromation Inc.

📅 March 2018 – October 2020   📍 Saint-Petersburg, Russia

Working in a start-up allowed me to broaden my horizons and realise projects in machine learning consulting, for example:

- Built a **computer vision** system which was able to save doctors' time by checking if a box with surgical tools was correctly completed. This was a challenge because there were a lot of diverse tools and we had to solve the problem without retraining the model (in a few-shot way).
- Created a **text** processing tool to extract useful information from emails. It required to fulfil a project from communicating with the client and setting up the data labelling process to containerization and deploying the trained model.

Junior data analyst
3Red Trading, LLC

📅 June 2016 – March 2017   📍 Saint-Petersburg, Russia

The company analysed billions of transactions from Chicago Mercantile Exchange. Based on statistical anomalies, I recognized traders who used automatic tools, which allowed our team to predict their behaviour. I also learned how to make reports with a large number of graphs as clear as possible.

SIDE PROJECTS

Catalyst
In top-10 contributors by code amount

Catalyst is a popular **open-source** analogue of Keras for PyTorch (2.3k stars on GitHub). Among other things, I have implemented and tested a metric learning module for obtaining the representations of objects.

Medium post [en]. Video from Data Fest [en].

Uber Movement Challenge
2nd place (out of 100+ teams)

📅 11 Oct 2019 – 10 Feb 2020

This was a tabular competition with the following task: *"Predict when and where road incidents will occur next in Cape Town"*. We achieved good results due to non-standard feature engineering for spatial data and a neat validation pipeline.
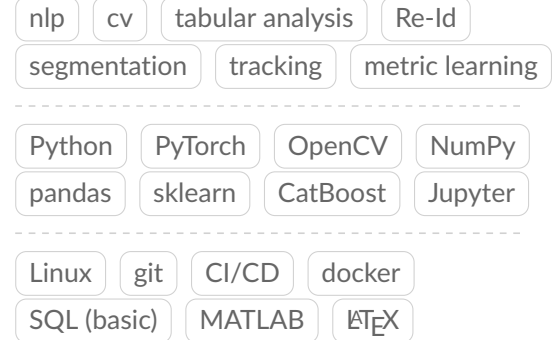
GitHub. Video from Data Fest [ru].

JetBrains seminars at Computer Science Center
Gave a lecture about Person Re-Id task

Video [ru].

SKILLS AND ABILITIES

`nlp` `cv` `tabular analysis` `Re-Id`
`segmentation` `tracking` `metric learning`

`Python` `PyTorch` `OpenCV` `NumPy`
`pandas` `sklearn` `CatBoost` `Jupyter`

`Linux` `git` `CI/CD` `docker`
`SQL (basic)` `MATLAB` `LaTeX`

EDUCATION

PhD student in Mathematical Logic
Steklov Mathematical Institute of RAS

📅 2019 – 2023 (expected)

Scientific advisor is S. Nikolenko.

MSc in Applied Mathematics and Physics
Saint-Petersburg State University

📅 2016 – 2019

Thesis title: "Semi-automatic cataloguing of images in a social network using machine learning methods".

BSc in Physics
Saint-Petersburg State University

📅 2012 – 2016

Thesis title "Statistical methods for the separating of interfering seismic waves".

COURSES

- Introduction to databases, certificate.
- Functional programming in Haskell, certificate.
- Graph theory, certificate.

LANGUAGES

- English — Upper-Intermediate (B2)
- Russian — Native speaker