ALEKSEI SHABANOV

Applied Data Scientist

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DS with 6+ years of experience. Currently leading a team and organising the development of an open-source project.

WORK EXPERIENCE

Staff Data Scientist
NewYorker GmbH

March 2021 – present   Berlin, Germany

I led a team that works on vector representation for the **images** of the company's product catalog. I was responsible for research and development and also communicated with other teams and stakeholders to find the best way of using our model. Finally, I came up with exposing it as an internal API.

- Thanks to this API our colleagues from other DS projects boosted their metrics.
- I also released the training pipeline as an open-source library and promoted it on meetups to improve our employer branding.

Applied Data Scientist
Neuromation Inc.

March 2018 – October 2020

Working in a start-up allowed me to broaden my horizons and realize 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. The challenge was to solve the problem without retraining the model for the new tools (in a few-shot way).
- Created a **text** processing tool to help operators extract useful information from emails. It required fulfilling the project from communicating with a 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

The company analyzed billions of transactions from the Chicago Mercantile Exchange. Based on statistical anomalies, I recognized traders who used automatic tools, which allowed our team to predict their behavior.

SKILLS AND ABILITIES

computer vision   NLP   tabular   metric learning   tracking

python   PyTorch   OpenCV   pandas   sklearn

Linux   git   CI/CD   docker   Kubernetes   SQL

LANGUAGES

- English — Upper-Intermediate (B2)
- German — Elementary (A2)
- Russian — Native speaker

SIDE PROJECTS

Open-Source
OpenMetricLearning, author

OML is a new framework to train and validate models producing high-quality embeddings. It has a zoo of pretrained models, Config API, and a rich set of examples. I pay special attention to maintaining well-written documentation and covering the whole functionality with tests.

Catalyst, in top-10 contributors

It's a popular analogue of Keras for PyTorch (3k stars on GitHub, part of PyTorch ecosystem). Among other things, I've implemented a metric learning module for it, post.

Competitions
Challenge by Uber, 2nd 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"*. I organised the team and our strong sides were feature engineering for spatial data and a neat validation pipeline.

Kaggle competitions expert

JetBrains seminars at CS Center
Lecture about Person Re-Id problem

Video [ru].

EDUCATION

MSc in Applied Math and Physics
Saint-Petersburg State University

2016 – 2019

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

BSc in Physics
Saint-Petersburg State University

2012 – 2016

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