

ALEKSEI SHABANOV

Data Scientist for Computer Vision

📍 Berlin, Germany

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🔗 alekseysh

I am a deep learning engineer who strives to find balance between research complexity and code quality.

WORK EXPERIENCE

Senior Data Scientist for Computer Vision

NewYorker GmbH, [fashion retailer]

📅 March 2021 – present

📍 Berlin, Germany

I lead a small team that works on the retrieval problem for the fashion domain. We keep our finger on the pulse of the latest research and develop our model based on the recent success in Metric Learning and Self-Supervised Learning. As a team lead I am responsible for both scientific research and delivery of solutions to production.

Machine learning engineer

Neuromation Inc.

📅 March 2018 – October 2020

📍 Saint-Petersburg, Russia

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. This was a challenge because there were a lot of diverse tools and we had to solve the problem without retraining the model for the new ones (in a few-shot way), [link](#).
- Created a **text** processing tool to extract useful information from emails. It required to fulfill a project from communicating with the client and setting up the data labeling process to containerization and deploying the trained model.

Junior Data Analyst

3Red Trading, LLC

📅 June 2016 – March 2017

📍 Saint-Petersburg, Russia

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 segmentation object detection tracking

metric learning self-supervised learning NLP Re-Id

python PyTorch Catalyst Lightning OpenCV NumPy

pandas sklearn CatBoost Jupyter Streamlit

Linux git CI/CD docker Kubernetes SQL

LANGUAGES

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

SIDE PROJECTS

Open-Source activity

Catalyst, In top-10 contributors

Catalyst is a popular **open-source** analogue of Keras for PyTorch (3k stars on GitHub, part of PyTorch ecosystem). Among other things, I have implemented and tested a metric learning module for obtaining the representations of objects.

[Medium post \[en\]](#).

OpenMetricLearning, author

This project is a continuation of the metric learning pipeline which I've implemented in Catalyst. Note, that the project is under the construction now and I am going to release it soon.

ML competitions

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". Our strong sides were feature engineering for spatial data and a neat validation pipeline.

Kaggle competitions expert

JetBrains seminars at CS Center

Gave a lecture about Person Re-Id problem

[Video \[ru\]](#).

EDUCATION

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", [link](#).

BSc in Physics

Saint-Petersburg State University

📅 2012 – 2016

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