# Yulia Yakovleva

Software engineer

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## Experience

November 2021 – Machine learning engineer, Descriptor.ai, Remote/Moscow.

Now • Sound data processing with deep learning models (Python, NumPy, TensorFlow, Keras, Sound data).

July 2021 - Machine learning engineer, MediaZona, Remote/Moscow.

October 2021 • AI Text Generation (NLP, Python, NumPy, TensorFlow, Keras, Transformers, GPT): I worked on conditional text generation with neural networks. My responsibilities included both engineering/coding and interaction with non-tech employees of MediaZona on translating their non-tech requirements into "tech language", finding the data and getting a feedback on text generators' work.

March 2018 - Software engineer, Yandex Self-Driving Cars, Moscow.

May 2021 • Sensor diagnostics software (ROS, C++, Python, NumPy): I created data quality checking software modules for cameras and LiDARs.

- Traffic lights recognition software (ROS, C++, Python, NumPy, TensorFlow, Keras).
  - I worked on improvement of traffic lights recognition and tracking pipeline,
  - learning data mining, pre-processing and datasets preparation,
  - created, learned and deployed multiple iterations of deep neural networks, which are working now on hundreds of self-driving cars made by Yandex.

October 2015 – Robotics researcher/developer, Institute for Information Transmission August 2017 Problems RAS (Kharkevich Institute), Moscow.

I worked on self-driving car prototype positioning and control software including: system launch tool to replace ROSLaunch, positioning and control systems (C++, Python, ROS, Eigen, Computer Vision, Kalman filters).

June 2015 – Junior web-developer,  $WETA\ Group$ , Remote.

October 2015 Full-stack web-development

July 2013 – Junior control systems developer, Modern Signal Processing and Con-

June 2015 trol Technologies R&D Laboratory, Chelyabinsk.

# Volunteering

 $\label{eq:may-2020-now} \textbf{Web developer/data analyst}, \textit{OVD-Info}, \textit{Remote/Moscow}.$ 

OVD-Info is an independent human rights media project. I'm participating in development of information collection and analysis system for OVD-Info using SQL, Python and Django.

## Talks

Traffic Lights in Yandex Self-Driving Cars, Presented at Yandex Self-Driving Meetup 2019, PyLadies Moscow and PyLadies Kazan.

Myths about Self-Driving Cars, Presented at WTM Moscow.

Data mining in Yandex Self-Driving Cars, Presented at Pytup Moscow.

## Education

## 2010–2015 National Research South Ural State University;

 ${\bf Computer\ Technologies,\ Control\ and\ Radio\ Electronics\ Faculty;}$ 

Automation and Control Department;

MEng with honours.

### 2015–2017 Moscow Institute of Physics and Technology (State University);

Department of Innovation and High Technologies;

Cognitive technologies sub-faculty;

MSc in Computer Science.

# Languages

Russian Native speaker

English Fluent

German Beginner

Tatar Beginner

#### Skills

#### Main:

C++ (Eigen), Python (Jupyter, NumPy, Keras, Sklearn), Git, ROS, Linux, Machine Learning, Computer Vision.

#### Experience with:

Bash, C, OpenCV, JS (some outdated frameworks), Django, Docker, LATEX, Dynamic systems math modelling, Matlab/Simulink.

# Pet projects

### rTerm, github.com/robolamp/rTerm.

Fake JS-based UNIX term for my personal page.

# Random three body problem bot, github.com/robolamp/3\_body\_problem\_bot.

A program which is simulating the behavior of random three body system multiple times and publishing animation of the most interesting one every 12 hours at Telegram channel.