Sofia Potapova

Machine Learning Engineer

Education

Sep 2017 – Jun 2020 Master of Computer Science, Moscow Institute of Physics and Technology, Applied Math and Computer Science Degree.

Thesis: Next Best View via Reinforcement Learning.

Sep 2013 – Jun 2017 Bachelor of Computer Science, Moscow Institute of Physics and Technology, Applied Math

and Computer Science Degree.

Thesis: Heuristic Hyperparameter Optimization via Computational Learning Theory.

Sep 2017 – Jun 2019 Student, Yandex Data School, Moscow, Computer Science Department.

Experience

June 2020 - Present Head of Data Science @ Co-founder, SmallTalk, Remote.

Building NLP and Voice recognition product for AI English Speaking Coach.

- o Designed and developed English Speaking Grammatical/Pronunciation Error Correction pipeline.
- o Implemented Speech Vocabulary and Semantic analyzer.
- Designed and developed automated English Speaking Test.
- o Stack: Python, Pytorch, Docker.

Mar 2019 - Mar 2020 Machine Learning Engineer @ R&D Team, Orcadt, Remote.

Working on recognition and tracking algorithms using CCTV.

- o Designed and developed Car Detection and Tracking pipeline.
- Designed and developed Face Detection and Recognition pipeline.
- o Stack: Python, TensorFlow, Pytorch, Docker, Kafka.

Sep 2018 – Mar 2019 Machine Learning Engineer @ Optelos, Flatlogic, Remote.

Working on computer vision algorithms for Drone data management and AI Analytics platform for Optelos.

- Designed and developed 2D object detector.
- Designed data collection pipeline.
- o Stack: Python, Docker, TensorFlow, OpenCV, Travis.

Mar 2017 – Aug 2018 Software Engineer @ Self-Driving Cars, Yandex, Moscow.

Working on perception algorithms for autonomous cars.

- o Implemented LiDAR point cloud filters for adverse weather conditions.
- Designed and developed 3D point cloud pedestrians detector.
- Improved 3D point cloud vehicles detector by 14.6% (AP BEV metric).
- o Designed data annotation tasks: segmentation, 3D pedestrians detection, 2D objects detection.
- Stack: Python, C++, Cython, Docker, ROS, TensorFlow, OpenCV, Eigen, Teamcity.

Oct 2016 - Dec 2016 Research Intern @ Visual Systems, Institute for Information Transmission Problems, Moscow.

- o Developed 2D edge detector in Buildings BEV (Bird Eye View) Detection problem.
- o Stack: Python, scikit-learn, OpenCV.

Oct 2017 – Jan 2020 Course Assistant @ Coursera 'Deep Learning in Computer Vision', HSE, Remote.

Feb 2020 - June 2020 Course Assistant @ Yandex Data School 'Deep Learning', Yandex, Remote.

Skills

CS fields Machine Learning, Deep Learning, Computer Vision, Reinforcement Learning

Programming languages Python, Cython, C/C++

Data Science Libs TensorFlow, Pytorch, OpenCV, Eigen

General dev Unix/Linux, Docker, Git, SVN, Jira, Jupyther

Languages English (advanced), Russian (native)