

# Anna Vorontsova

## Data Scientist / AI Researcher

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Google Scholar: <https://scholar.google.com/citations?user=HiVoQCIAAAAJ>.

Personal page: <https://highrut.github.io/>.

M.Sc. in Data Science (2020), B.Sc in Applied Mathematics (2018) from one of the best Russian universities. 5+ years of both industrial and research experience, focus on Computer Vision. Experience: Samsung. 7+ research papers accepted to top-tier conferences (**CVPR**, **ECCV**, **IROS**, **WACV**). Hands-on experience with various DL models (**CNN**, **RNN**, **Transformers**) and frameworks (**PyTorch**, **Tensorflow**).

## Experience

Oct 2018 – till now     **Samsung AI Center**  
**AI Researcher, 2D/3D Computer Vision**  
Python, PyTorch, Tensorflow, Open3D, OpenCV

Developed state-of-the-art algorithms addressing 2D and 3D computer vision tasks: SLAM, visual and sensor-based localization, 3D reconstruction of indoor scenes, depth estimation, 2D and 3D object detection.

Formulated scientific hypotheses and conducted experiments to prove them. Co-authored academic papers accepted to top-tier CV and robotics conferences: **CVPR**, **ECCV**, **IROS**, **WACV**. Overall, contributed to 16 papers. Served as a reviewer. Have international patents on technical inventions. Developed demos and PoCs on visual odometry, visual indoor localization, fruit and vegetable weight measurement based on RGB-D data. Collected, labeled and prepared data for prototyping and research purposes: visual navigation, 3D reconstruction of indoor scenes, visual analytics for retail. Mastered all kinds of writing: academic manuscripts, regular reports, patents, technical tasks for data annotators, internal guides.

June 2017 – Oct 2018     **Rambler&Co**  
**Junior Data Scientist, Computer Vision**  
Python, PyTorch, Keras, scikit-learn, OpenCV

Contributed to a project on cinema visitor monitoring based on video surveillance data.

Developed algorithms based on deep neural networks (segmentation, classification, detection, tracking). Collected, labeled, and prepared training data. Conducted experiments and presented the results in reports and slides.

What once started as a small toy project run by one intern (me), was considered so successful that it convinced the top management to create a CV department, mostly to develop and maintain the cinema monitoring system. The implemented solution was used to collect statistics in over 700 cinema halls in Russia.

## Education

Sep 2014 – June 2018     **Bachelor of Applied Mathematics**  
Machine Learning and Applications track  
HSE University

Sep 2018 – June 2020     **Master of Data Science**  
HSE University

Sep 2018 – June 2020     **Data Scientist, Advanced track**  
Yandex School of Data Analysis

## Technical Skills

Code:    Python, MATLAB, HTML/CSS  
ML:     scikit-learn, NumPy, SciPy, Pandas  
CV:     OpenCV, Open3D  
DL:     PyTorch, Tensorflow  
Tools:   Git, Docker

## Languages

Russian (native), English (upper-intermediate)