Anna Vorontsova

Data Scientist/AI Researcher

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LinkedIn

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M.Sc. in Data Science (2020), B.Sc in Applied Mathematics (2018) from one of the best Russian universities (QS: world's top 400, top 200 in Computer Sciences). 6+ years of industrial and research experience, focus on Computer Vision. Experience: Samsung. 9 research papers at top-tier conferences (**CVPR, ECCV, AAAI, WACV, IROS**), h-index=6. Hands-on experience with various models **(CNN, Transformers)** and frameworks **(PyTorch, Tensorflow)**.

Experience

May 2024 till now — **NEURA Robotics GmbH**
Deep Learning Expert, 2D/3D Computer Vision
Python, PyTorch, Open3D, OpenCV, trimesh, Blender

- Adapted existing 3D reconstruction, depth estimation, object segmentation methods for a robotic scenario. Developed new methods addressing antipodal and suction grasp generation.
- Generated data for training and benchmarking developed methods.
- Contributed to documentation on AI Safety, wrote customer documentation and internal guides.

Oct 2018 – Apr 2024 — **Samsung AI Center**
AI Researcher, 2D/3D Computer Vision
Python, PyTorch, Tensorflow, Open3D, OpenCV, trimesh

- Developed state-of-the-art 2D and 3D computer vision algorithms: SLAM, visual localization, 3D reconstruction of indoor scenes, depth estimation, object segmentation, 2D and 3D object detection.
- Co-authored 19 academic papers accepted to top-tier CV and robotics conferences. Served as a reviewer. Prepared international patents on technical inventions.
- Developed prototypes of visual odometry, indoor localization, RGBD-based object weight measurement.
- Collected, labeled and prepared data for prototyping and research of visual navigation, 3D reconstruction of indoor scenes, visual analytics for retail.
- Wrote papers, regular reports, patents, tasks for data annotators, internal guides.

Jun 2017 – Oct 2018 — **Rambler&Co *(a media holding company)***
Junior Data Scientist, Computer Vision
Python, PyTorch, Keras, scikit-learn, OpenCV

- Developed segmentation, detection, tracking algorithms for video surveillance in cinemas.
- Collected, labeled, and prepared training data.
- The results convinced top management to create a computer vision department focusing on this task. The implemented solution was used to count visitors in over 700 cinema halls in Russia.

Education

Sep 2014 – Jun 2018 — **Bachelor of Applied Mathematics**
Machine Learning and Applications track
HSE University, GPA 4.69 (8.1/10)

Sep 2018 – Jun 2020 — **Master of Data Science**
HSE University, GPA 4.5 (8.68/10)

Sep 2018 – Jun 2020 — **Data Scientist, Advanced track**
Yandex School of Data Analysis
(independent 2-year DS school organized by Yandex, the largest Russian IT company)

Technical Skills

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

Languages

Russian	(native)
English	(upper-intermediate)
German	(elementary)

Awards

2023 Bronze Samsung Best Paper Award-2023 (top-25 research papers at Samsung)
2022 Outstanding reviewer at NeurIPS 2022.