Andrey Yershov

Current interests: Computer Vision, Machine Learning for medical image processing and biophotonics.

Jena, Germany
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EDUCATION

Friedrich Schiller University, Germany 🇩🇪
M.Sc. Photonics at Abbe School of Photonics

October 2021 – Current

- Average grade: 1.8.
- DAAD Master scholarship.

Nazarbayev University, Kazakhstan 🇰🇿
B.Sc. Robotics and Mechatronics

August 2016 – June 2021

- cGPA 3.55/4.0.
- Dean's list, Spring 2019.
- Nazarbayev University educational scholarship.

WORK EXPERIENCE

Computer Vision Researcher at Institute of Applied Optics and Biophysics – Group Experimental Digitized Microscopy 🔬

March 2022 – Current

Applied **deep learning** for single molecule localization microscopy image analysis with Prof. Dr. Franke. Created dataset for **semantic instance segmentation** of microtubules and vesicles (subcellular organelles).

Researcher at Robotics department, Nazarbayev University

May 2019 – September 2021

Applied ML for **computer vision** task with Prof. Dr. Sandygulova. Improved accuracy up to 97% for action recognition, age and gender estimation model using PyTorch on a ~2k video dataset.

Built **reinforcement learning** setup with Prof. Dr. Kappassov. Applied SolidWorks CAD and Ultimaker 3D printing of the components.

Regional Technical Manager at eduvation.kz

September 2019 – October 2020

Managed technical tasks at EdTech startup for online delivery of education. Maintained network/media/teaching hardware.

Freelance electronics repair specialist

May 2014 – August 2019

Repaired damaged laptops, smartphones etc. electronics hardware.

SKILLS

- **Python** (PyTorch, OpenCV).
- **C**, C++, ROS coding (Gazebo, RVIZ, OpenAI gym, NAO robot).
- **MATLAB,** ImageJ (Simulink, Image Processing).
- **Computer hardw.** architecture, Ubuntu/Linux (bash, git, VM).
- FPGA, Arduino (microcontrol.)
- CAD (Solidworks, Fusion 360).
- 3D printing (Cura, Ultimaker).

CERTIFICATIONS

- IELTS 8.0
- "Retail Big Data" Hackathon winner – *Magnum C&C* (2021)
- Machine Learning School – *Innopolis* (2020)
- Machine Learning w/ TF Spec – *Coursera* (2020)
- Software Engineering School *QWANT* – Nur-Sultan (2020)
- *FAA* sUAS Pilot (2020)
- *Microsoft* Comp. Netw. (2019)
- *Cisco* Cert. Technician (2016)

LANGUAGES

- English – C1
- German – B1
- Turkish – B1
- Kazakh – C1
- Mandarin – A1