

Abduragim Shtanchaev



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EDUCATION

- **Skoltech** Moscow, RU
M.Sc. in Information Systems and Technology, GPA: 3.92/4.00 Sept 2018 - May 2020
- **University of Turkish Aeronautical Association** Ankara, Turkey
B.Sc. in Mechatronics Engineering, GPA: 3.35/4.00 Sept 2013 - July 2018

WORK & RESEARCH EXPERIENCE

- **O.Vision** Saint Petersburg, RU
Research Data Scientist January 2021 - Present
 - **Recognition:** Developing fast face recognition algorithms for entry access and payments systems
 - **Detection:** Developed fast face detection algorithms for deployment on edge devices
 - **Image Quality Assessment:** Developed image quality assessment algorithms for fast face recognition systems
 - **Model Deployment:** Deploying models on edge devices - what's the point if you can't deploy that which you have developed :)? After all - the fruit of knowledge is action upon it
- **NeurodataLab LLC** Moscow, RU
Research Data Scientist April 2020 - September 2020
 - **Ad Power:** Developed predictive models for ad recall predictions based on the emotional state of respondents, media coverage of ads, and information about ads.
 - **Data Collection & Preprocessing:** Developed data preprocessing pipelines for ad recall prediction models from a scratch
 - **Paper:** Contributed to a [paper](#) on ad recall prediction
- **German Orbital Systems** Berlin, GE
Research Intern Summer 2019
 - **ADCS:** Developed testbed for Attitude Determination and Control System for small cubesats satellites. The control system enables small satellites to control attitude and tilt using only magnetorquer. For [more details](#)
- **Skoltech** Moscow, RU
A list of valuable projects accomplished as an M.Sc. student 2018 - 2020
 - **Iris Flower Classifier Deployment:** Created a web service for Iris Flower classifier using Flask and Docker. Deployed on AWS. [Code](#)
 - **Optimizing GANs using non-classical optimizers:** GANs are known as "difficult to train" for various stability reasons. We used non-classical optimizers in deep learning to remedy the problem. Implemented and tested on GANs using Pytorch following optimizers: Gradient Sliding, Ellipsoid, and Quick prop. [Code](#) and [presentation](#)
 - **Camera Trajectory Estimation:** Implemented a model for estimating the trajectory of a framing camera using RGB-D images and classical computer vision techniques. Wrote a [blog on medium](#) about the project. Source [code](#)
 - **Recybot:** A project in collaboration with the Department of Mechanical Engineering at MIT under Prof. Kamal Youcef-Toumi and Skoltech Robotics lab. Built screw detection model for automated e-waste disassembly - recybot. More about project [here](#)
- **University of Turkish Aeronautical Association** Ankara, TU
A list of valuable projects accomplished as a B.Sc. student 2014 - 2018
 - **Sumo Robot:** Built and programmed a Sumo Robot using Arduino and other components to participate in a competition. Took a part but did not take over :)
 - **CNC 3D Printer:** Built and programmed a CNC machine for 3D printing
 - **Drone Controller:** Developed mathematical model for controlling position, velocity and acceleration of a drone. Tested the algorithm in a simulated environment(due to budgeted restrictions :))

THESIS PROJECTS

- **Automated Forest Inventory Using Satellite Images**

M.Sc. Thesis advised by Prof. Anton Ivanov

- **Python:** Developed a semi-supervised approach for tree crown classification in boreal forest using World-View2 satellite imagery with a low spatial resolution - 0.5m/pix. Presented at IAC conference. The full [thesis](#) and [code](#)

- **Pipeline Inspection Robot - PIG**

B.Sc. Thesis advised by Prof. Habib Ghanbarpourasl

- **C++:** Odometry calculation in wheel slippage cases. Developed and tested an algorithm for a robot odometry using camera assistance in the cases when wheel slippage is present.

ACHIEVEMENTS

2020	Competed SMILES , selected 10% applicants. Certificate	Moscow, RU
	Graduated with High Honors from Skoltech	
2018	Prestigious Full Scholarship at Skoltech for M.Sc, selected from 3k+ (<1 %)	
	Graduated with Honors from UTAA	Ankara, TU
2013	Full Scholarship for B.Sc. at UTAA	
	Graduated with High Honors from Liceum	Makhachkala, RU
2011	Ranked 4th in Russian Regional History Olympiad	

TOOLS

Strong	♥ Python ◦ ♥ Vim ◦ ♥ Pytorch ◦ bash/zsh ◦ git
Normal	Java ◦ C++ ◦ SQL ◦ OpenCV ◦ Language is not problem after all :)
Familiar	TensorFlow ◦ Keras ◦ mxnet ◦ HTML ◦ C ◦ Jekyll ◦ Docker ◦ Flask ◦ TVM

SKILLS & INTEREST

Strong	♥ Computer Vision ◦ ♥ Graph Neural Networks ◦ ♥ Math & Statistics
Normal	♥ Bayesian Inference ◦ Algorithms and Data Structures
Familiar	Quantum Computing ◦ Neuroscience ◦ NLP