# **Abduragim Shtanchaev**

#### **EDUCATION**

Skoltech Moscow, RU

M.Sc. in Information Systems and Technology, GPA: 3.92/4.00

Ankara, Turkey

University of Turkish Aeronautical Association UTAA

B.Sc. in Mechatronics Engineering, GPA: 3.35/4.00

July 2018

May 2020

### Work & Research Experience

NeurodataLab LLC Moscow, RU

Data Scientist

April 2020 - Present

• Ad Power: Built predictive models for ad recall predictions based on emotional state of respondents, media coverage of ads and information about ads. Currently, working on converting the models for production

- Data collection and prepossessing pipeline: Created data prepossessing pipeline 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 test bed 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

 $A\ list\ of\ valuable\ projects\ accomplished\ as\ a\ student$ 

2018 - 2020

- Optimizing GANs using non-classical optimizers: GANs are known as "hart to train" for various stability reasons. We used non-calassical 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 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 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

### OTHER PROJECTS

## Automated Forest Inventory Using Satellite Images

- M.Sc. Thesis advised by Prof. Anton Ivanov
  - Python: Developed a semi-superviced approach for tree crown classification in boreal forest using World-View2 satellite imagery with a low spacial resolution 0.5m/pix. Accepted abstract at IAF conference. The full thesis and code

## Pipeline Inspection Robot - PIG

- B.Sc. Thesis advised by Prof. Habib Ghanbarpourasl
  - C++: Odometery 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	Graduated with High Honors from Skoltech	Moscow, RU
2018	<b>Prestigious Full Scholarship</b> 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 4 <sup>th</sup> in Russian Regional History Olympiad	

# Skills & Interest

>5000 lines Python  $\circ$  Pytorch

>1000 lines Java  $\circ$  C++  $\circ$  bash  $\circ$  git

 $\textbf{familiar} \qquad \text{Tensorflow} \circ \textbf{Keras} \circ \text{mxnet} \circ \text{HTML} \circ \text{C} \circ \text{Jekyll}$