# NIKOLAI GAIDUCHENKO

#### **Curriculum Vitae**

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**\** +7-925-450-82-99 Moscow, Russia



### **WORK EXPERIENCE**

#### **Data Scientist**

#### Machine Intelligence Laboratory by K.V. Vorontsov

## 09.18 - present

MIPT, Dolgoprudny, Russia

One-click Deep Learning pipeline for synthetic document dataset generation

#### **Engineer Assistant**

### SPA (NPO) «Almaz», R&D dept.

## 12.18 - present

Moscow, Russia

Re-entry hypersonic venicle trajectory generation, simulation, and classification using LSTM-based networks

#### **Engineer Assistant**

#### Samsung R&D, Al Algorithms Lab

**1** 06.18 - 09.18

Moscow, Russia

Deep learning and computer vision for self-driving robot

### **Laboratory Assistant**

#### **Laboratory of Design of Special Computer Systems Architectures**

**10.17 - 12.18** 

MIPT, Dolgoprudny, Russia

Sub-array antenna modeling app for CAD Radar Python package «PyPhased»

## **EDUCATION AND TRAINING**

#### **Moscow Institute of Physics and Technology**

 $\stackrel{\text{def}}{=} 2015 - \text{present} (4^{th} year)$ 

Russia, Dolgoprudny

Department of Radio Engineering and Cybernetics BSc, Applied Mathematics and Physics, GPA: 8.8/10.0

- Mathematics (Linear Algebra, Differential Equations, Probability. Statistics)
- General Physics, Theoretical and Quantum Mechanics, Field Theory, Statistical Physics
- Engineering, CAD, Micro Controllers, Radar Applications, Digital Signal Processing, Signal Theory
- Cryptography, Information Security Theory, Information Theory
- Computer Science, Computational Mathematics, ML algorithms and principles, Computer Vision

#### **Regional Lyceum for Gifted Children**

**2013 - 2015** 

Russia. Penza

#### Kaspersky Cybersecurity Summer Lab

Russia, Kaluga region

#### **MIPT Extramural Physical-Technical School**

**2011-2015** 

Russia, Dolgoprudny

## **ACHIEVEMENTS**

### **Russian National Phystech Olympiad**

Prize winner: Physics

**MIPT Radio Engineering Competition** 

Prize Winner

Abramov's scholarship for excellent progress in university in 2018

## **PUBLICATIONS**

## MIPT 59<sup>th</sup> International Scientific Conference: **General Physics Section, 2017**

To the question of the temperature dependence of the coefficient of surface tension of water. Intermediate results. / Nikolai Gaiduchenko, Oleg Lashinin

## RELEVANT COURSES

### Kalman and Bayesian Filters in Python

by Roger R. Labbe

Machine Learning and Data Analysis

on Coursera by MIPT & Yandex

**Building Deep Neural Networks in Python** 

by Andrey Sozykin

#### **ROS Courses and Tutorials**

interactive courses by Robot Ignite Academy

## **COMPUTER SKILLS**

- Python: PyTorch, Tensorflow, Keras, PyQt5, ROS, Numpy, Tornado, Numba optimization
- Bash, Git, Docker, Google Colaboratory, experience in using AWS Amazon web services for complex
- LATEX, huge experience in making presentations

## **ENGINEERING SKILLS**

- Assembler (ARM, i386, AVR), PCB boards, Arduino
- OrCad, KiKad, SolidWorks, Proteus
- Verilog (Digilent Nexus FPGA), Xilinx ISE Design Suite

## **LANGUAGES**

**English** Russian

