# NIKOLAI GAIDUCHENKO

### **Curriculum Vitae**

- Gaiduchenko.NE@gmail.com+7 (925) 450-8299
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### WORK EXPERIENCE

### Middle Data Scientist

PJSC «Almaz», R&D dept.

📋 12.18 - present

Moscow, Russia

Hypersonic aircraft vehicle trajectory generation, forecasting and classification using Deep Learning models

#### **Junior Data Scientist**

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

**1** 09.18 - 10.19

MIPT, Dolgoprudny, Russia

One-click Deep Learning pipeline for synthetic document dataset generation, text recognition models

### **Engineering Assistant**

### Samsung R&D, Al Algorithms Lab

**6** 06.18 - 09.18

Moscow, Russia

Deep learning and computer vision for self-driving robot

### **Engineering Assistant**

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

**1**0.17 - 12.18

MIPT, Dolgoprudny, Russia

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

## **PUBLICATIONS**

### **Conference Proceedings**

- N. E. Gaiduchenko, P. A. Gritsyk, and Y. I. Malashko, "Multi-step ballistic vehicle trajectory forecasting using deep learning models", in 2020 International Conference on Engineering and Telecommunication EnT, Dolgoprudny, Russia, 2020.
- N. E. Gaiduchenko and P. A. Gritsyk, "Hypersonic vehicle trajectory classification using convolutional neural network", in 2019 International Conference on Engineering and Telecommunication EnT, Dolgoprudny, Russia, 2019.
- $\bullet\,$  . and., "  $\,$  . .", in 59-, Dolgoprudny, Russia, 2016.

# **ACHIEVEMENTS**



MIPT Radio Engineering Competition
Prize Winner

Abramov's Scholarship for excellent progress in 2018

Increased State Academic Scholarship for excellent progress in 2020, 2021

## </> IT SKILLS

- **Python**: PyTorch, Keras, scikit-learn, PyQt5, pandas, numpy
- ROS, Arduino, AVR Micro Controllers
- Git, Docker, Google Colaboratory, experience in using AWS Amazon web services for complex calculations
- Later Adobe Photoshop, Adobe Illustrator, huge experience in design and presentations

### **Q** RELEVANT COURSES

Advanced C programming in UNIX environment

by D. V. Lunev, core QEMU, Parallels, OpenVZ developer

**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 by Robot Ignite Academy

### **AZ LANGUAGES**

English
Advanced (C2)
Russian
Native speaker
Japanese
Beginner (A1)







#### Bachelor + Master

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

 $\stackrel{\rightleftharpoons}{=}$  2015 – present (6<sup>th</sup> year)

Dolgoprudny, Russia

Phystech-School of Radio Engineering and Computer Science Applied Mathematics and Physics, GPA: 9.2/10.0

- 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
- Economics, Private Investments
- Philosophy, Management Psychology, Logics

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

**2013 - 2015** 

Penza, Russia

Diploma with honours



#### **SMILES Summer School of Machine Learning (Scoltech)**

**2020** 

Moscow, Russia

### **Kaspersky Cybersecurity Summer Lab**

**=** 2017

Kaluga Region, Russia

### **MIPT Summer Olympiad School**

**2015** 

Dolgoprudny, Russia

### **MIPT Extramural School of Physics and Mathematics**

**2011-2015** 

Dolgoprudny, Russia

Diploma with honours: physics, mathematics, computer science

### Nanograd Summer School (by RUSNANO School League)

**2011-2014** 

Russia

Research and Marketing Projects for Hevel, Hemacore, Bukvoed

# MEDIA SKILLS

- Adobe Photoshop & Illustrator, Pixelmator Pro
- Adobe After Effects & Premiere, Final Cut
- Cinema 4D, Mocha
- Microsoft Powerpoint, Prezi
- · Adobe XD, Adobe InDesign

### **♂** ACTIVITIES

Motion design

Guitar

Singing

Swimming

Bowling