

NIKOLAI GAIDUCHENKO

Researcher. Data Scientist. Innovator.

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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

 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, AI Algorithms Lab

 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

 10.17 – 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.
- Gaiduchenko, Nikolai E. and Lashinin, Oleg A., “To the question of the temperature dependence of the coefficient of surface tension of water. Intermediate results.”, in MIPT 59th National Scientific Conference, Dolgoprudny, Russia, 2016.






ACHIEVEMENTS

-  **Russian National Phystech Olympiad**
Prize winner: Physics
-  **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
- Bash, Git, Docker, Google Colaboratory, experience in using AWS Amazon web services for complex calculations
- \LaTeX , Adobe Photoshop, Adobe Illustrator, extensive experience in design and presentations

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

LANGUAGES

English	<div><div></div><div></div><div></div><div></div><div></div></div>
Advanced (C2)	
Russian	<div><div></div><div></div><div></div><div></div><div></div></div>
Native speaker	
Japanese	<div><div></div><div></div><div></div><div></div><div></div></div>
Beginner (A1)	

EDUCATION

Bachelor + Master

Moscow Institute of Physics and Technology

📅 2015 – present (6th 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

TRAINING

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
- Adobe After Effects & Premiere, Final Cut
- Cinema 4D, Mocha
- Microsoft Powerpoint, Prezi
- Adobe XD, Adobe InDesign

ACTIVITIES

Motion design

Guitar

Singing

Swimming

Bowling