Aleksandr **Nevarko**

DATA SCIENCE · SOFTWARE ENGINEER
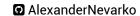
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Summary

I am a 6-year student at MIPT and a 2-year student at Skoltech. I am keen on programming, physics, maths and mostly all other technical sciences. My main hobbies are cars and chess. I have an entrepreneurial spirit and a lot of will to create new interesting projects. I am looking forward to learning new areas of computer science and applications of physics and maths in it.

Experience

Samsung AI Center
RESEARCH INTERN

Moscow, Russia
Jun 2021 - Jul 2021

- Personalized selfie editing project.
- Developed a conditional model.

Skoltech
RESEARCHER

Moscow, Russia
Dec 2020 - present

- Asymmetric telepresence system via Microsoft Kinect and VR glasses. 3D Computer vision. Scientific director prof. Victor Lempitsky.

Huawei
ENGINEER IN RESEARCH AND DEVELOPMENT

Moscow, Russia
Nov 2020 - Feb 2021

- Data analysis digital signal processing in fiber optic communication systems.

Acronis
GOLANG INTERN IN RESEARCH AND DEVELOPMENT

Moscow, Russia
Sep 2019 - Jul 2020

- Developing REST API Intelligent Fuzzing tester as a graduate work. The tool may become an opensource competitor for an analog from Microsoft Research RESTLer. Scientific director Anna Melekhova.

Laboratory for modeling and designing special computing architectures, MIPT
PYTHON DEVELOPER / PHYSICIST

MIPT, Moscow, Russia
Jul 2019 - Oct 2020

- Integrated a physical model of a ballistic rocket into the project.
- Developed a physical engine for phased antenna arrays.
- Improved a graphical phased antenna array geometry redactor.

Projects

Energy of Breakthrough (`https://github.com/maftukh/energy-hack`)
WINNER

Moscow
Oct 2021

- Control system for gas distribution network of a city
- Predicting optimal parameters for gas valves with restrictions for best gas distribution of the network

BCG GAMMA Hackathon on Digital Healthcare (`https://github.com/AlexanderNevarko/bcg-hack`)
PARTICIPANT

Moscow
Jul 2021

- Analysis of SARS and flu incidence rate data.
- Search for factors that affect the non-epidemiological incidence rate in different cities of Russia.

MICCAI AutoImplant 2021 Challenge
(https://github.com/aniton/AutoImplant-2020-2021)

Skoltech

PARTICIPANT
May 2021

- Problem: automatic cranial implant design. Create a solution, that given a skull with a defect, generates a 3D model of a cranial implant specifically for the patient.
- 3 approaches tried: baseline from authors, winning solution from 2020 challenge, 2020 SOTA 2D segmentation network (SAUNet) applied for 3D.
- SAUNet showed the best result.

Emotion tracker
(https://github.com/AlexanderNevarko/emotion-tracker)

Skoltech

ML ENGINEER
Dec 2020

- A system for real-time emotion tracking using web-camera. Useful to collect better feedback from online lectures and seminars.
- Dataset collection and analysis.
- Different approaches from classical CV to neural networks and Facebook ready-to-run pre-trained networks tested for speed and accuracy.
- Implementation for laptop web-camera usage.

Public places access system (frtk.mipt.ru / 8ka.mipt.ru)

MIPT

PROJECT LEAD
2017-2018

- Website with online timetable for some shared recourses in dormitories. Implemented for washing machine rooms.
- Booking and paying possibility on the site.
- Hardware electronic locker for key-card access to washing machine room.
- Developed by a team of 4 members, sold to 2 dormitories in MIPT.
- Won RedBull Basement University 2018 in Russia with that project.

Education

Moscow Institute of Physics and Technology
Dolgoprudny, Russia

DEPARTMENT OF RADIO ELECTRONICS AND CYBERNETICS
2016 - 2022

SUB-DEPARTMENT OF THEORETICAL AND APPLIED INFORMATICS, AFFILIATED WITH ACRONIS
2018 - 2020

INSTITUTE FOR INFORMATION TRANSMISSION PROBLEMS
2020 - 2022

Skoltech
Skolkovo, Russia

DEPARTMENT OF DATA SCIENCE
2020 - 2022

Skills

Languges	English (upper intermediate), German (B1)
Programming	Python, Go, C/C++, git, Linux
Maths	Linear algebra, mathematical analysis, differential equations, probability theory, etc.
Physics	General physics, quantum mechanics
Soft Skills	Leadership, communications, teamwork

Honors & Awards

2018	**Winner of the Russian stage**, Red Bull Basement University	*Moscow / Berlin*
2016	**Final Stage Winner**, Russian National Physics School Olympiad	*Sochi, Russia*