

Bredikhin Alexander

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Education

Specialized educational and scientific center (SESC)

PHYSICS AND MATHEMATICS CLASS

Ekaterinburg, Russia

2016 - 2018

Moscow Institute of Physics and Technology (MIPT)

BACHELOR OF APPLIED PHYSICS AND MATHEMATICS

Dolgoprudny, Russia

2018 - 2022

- Department of Radio Engineering and Cybernetics 2018-2019
- Department of Control and Applied Mathematics 2019-2022

Special courses

- Neural networks and computer vision, Samsung Research ([Stepik](#), 2020)
- Deep Learning School advanced level 1 sem ([Stepik](#), 2020-2021)
- Database and SQL, semester course at MIPT (2019-2020)
- Educational seminars in Sirius (2016, 2017)
- Course «Introduction to industrial programming and data structures, C/C++» Mail.Ru Group, 2019
- White and Yellow belts C++, MIPT & Yandex ([Coursera](#), 2020)

Skills

Programming languages	Python (PyTorch, Scikit-Learn, Pandas, NumPy, Matplotlib, Seaborn), SQL, C/C++, TeX/LaTeX
Databases	MSSQL
Development tools	PyCharm, CLion, Jupyter Notebook, Google Colab, git
Languages	Russian, English (B2)

Experience

- Sirius University, Student of Modern methods of information theory, optimization and management, August 2020
Project for Huawei: solving the Digital Predistortion problem
 - * Studying the theory of adaptive filtering,
 - * Implementation of the neural network architecture to solve the problem,
 - * Application of various gradient optimization methods.Libraries: Pandas, Numpy, Matplotlib.
- Yandex School of Data Analysis (SHAD)
 - Python course: writing a python interpreter. Graph of calculations in the mapreduce paradigm
 - Introduction to machine learning: lab work with competition on kaggle, such as predicting of the match result in Dota2. Determination of the detection of diabetes within within 5 years according to a preliminary study.
 - Methods of modern and applied statistics: sample normality testing, variance analysis, multiple choice hypothesis testing
- Writing neural networks for regression, classification, and detection tasks.
- Writing queries, designing DBMS, creating tables, triggers, views, managing transactions and access.
- Writing your own programming language, differentiator and game "Akinator" based on a binary tree (C language).

Awards

- Abramov scholar for high average score (2019-2021)
- Winner of First-level Olympiad in Physics - Rosatom (2018)
- Prizewinner of MIPT «Phystech» Mathematics and Physics Olympiad (2018)
- Winner of the All-Russian competition of design works among schoolchildren. (Project for determining the location of a meteorite impact) (2017)
- Development and launch of the SiriusSat small satellite into space. (This project was personally presented to the President of our country in the program "Non-child conversation with Vladimir Putin". I am the first student in Russia who launched a satellite into space) (2017).