

# Nikita Semenov

E-mail: nikita2014semenov@gmail.com § Phone: +79015020510  
Moscow, Pervomayskaya 42k2

## WORK EXPERIENCE

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Skolkovo Institute of Science and Technology  
(Skoltech)

2/2022 — 8/2022

*Junior research engineer*

### **Framework to automatic neural architecture search (NAS) for VTB**

Responsibilities:

- Research NAS approaches
- Design searchspace
- Testing algorithms
- Integration working solutions into framework
- Writing documentation to framework

Algorithm stack:

- Hyperband, differentiable NAS, train-free NAS, bayesian networks
- Transformers, RNNs, ConvNets

Tech stack:

- Python, Pytorch, pandas, numpy, seaborn, sphinx
- Docker, VS code, Git

Project status: all tasks completed

Neiry

2/2022 — 6/2022

*Junior research engineer*

### **Emotion recognition via EEG**

Responsibilities:

- Research EEG preprocessing
- Feature selection
- Design models for small data
- Analysis of data via end-to-end pipeline
- Recommendation about experiment design

Algorithm stack:

- FFT, Wavelet analysis, ICA, Notch and Butterworth filters
- EEGNet, gradient boosting, NeuralODE, MRMR

Tech stack:

- Python, Pytorch, pandas, numpy, mne, pywavelets
- JupyterLab

Project status: necessary conclusions was developed, project was freezed

*Lecturer*

**Student summer school by "Intellect" foundation and MSU department of mechanics and mathematics**

Responsibilities:

- Writing 11 lectures and seminars to course
- Giving my lectures and seminars to students

Github: [https://github.com/Serega200010/MM\\_summerschool\\_2022](https://github.com/Serega200010/MM_summerschool_2022)

**Freelance**

8/2020 — until now

*Online Tutor*

Prepare students to EGE and olympiads

## SKILLS

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- Python (Pytorch, Pandas, Numpy, Sklearn, Matplotlib, Seaborn, MNE, etc.)
- Classical ML, Deep Learning, RL, NAS
- Many parts of higher mathematics
- Working environment (VS code, Docker, Github, Anaconda, Sphinx, etc.)
- Fluently reading any scientific literature on English, speaking English
- Time management, self-organization, online working
- Transformers, ConvNets, GANs, NAS, RL, RNN, etc.

## EDUCATION

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Department of mechanics and mathematics

9/2019 — until now

*Moscow State University*

I took an academic leave, so now I'm the third year student

## QUALIFICATIONS

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Second place at the "Leaders of Digital Transformation 2021" hackathon

Third place at the "Digital Breakthrough 2021: Fintech" hackathon

GitHub: <https://github.com/zer0o0ne>