

Iakov Grigoryev

SOFTWARE ENGINEER · MACHINE LEARNING RESEARCHER · MATHEMATICIAN

Moscow, Russia

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“Ready to develop and improve in any direction.”

Education

New Economic School (NES)

Moscow, Russia

MASTER OF ARTS IN ECONOMICS

2019 – 2021 expected

- GPA: 4.8/5.3
- Term Paper: [Using NNs and Other ML Algorithms with Non-Standard Loss Functions in Realized Volatility Forecasting](#)
- Projects:
 - [International Macroeconomics Project](#) (Python, 2020)
 - [Gopinath-Stein \(2018\) Paper Replication](#) (Python, 2020)

Lomonosov Moscow State University (MSU)

Moscow, Russia

BACHELOR IN APPLIED MATHEMATICS AND COMPUTER SCIENCE (CUM LAUDE), SYSTEM ANALYSIS DEPARTMENT

2015 – 2019

- GPA: 4.95/5
- Thesis: [Properties of Quadratic Mappings](#) (in Russian)
- Term Paper: [Nonlinear Dynamics and Limit Behavior of Discrete and Continuous Dynamic Systems in 3D Space](#) (in Russian)
- Undergraduate Practice (in collaboration): [Ellipsoidal Toolbox](#) (Python, 2018)
- Projects:
 - [Toolboxes](#) (Python, 2019, in Russian)
 - [Stochastic Analysis and Modeling](#) (MATLAB, 2018, in Russian)
 - [Ellipsoidal Estimates for a Backward Reach Set](#) (MATLAB, 2018, in Russian)
 - [Optimal Control in Dynamic Problems](#) (MATLAB, 2018, in Russian)
 - [Single-Player Game “Terrain Simulator”](#) (C++, 2017)
 - [Unix Command Shell Emulator](#) (C, 2016)
 - [Graph Implementation](#) (C, 2016)

Skills

Programming	Python, C, C++, Java, MATLAB, SQL, LaTeX
Software / Tools	Git, Linux, JetBrains Software, Numba, Ray, AWS, Docker, REST API
Machine Learning	Statistics, Deep Learning (PyTorch, Tensorflow, Keras), Reinforcement Learning
Languages	Russian (native), English (Upper Intermediate)

Experience

LivLet

London, United Kingdom (remote)

MACHINE LEARNING RESEARCHER AND ENGINEER

2020 – 2021

- Implemented a NER-based algorithm to extract various fields from photoed and scanned invoices and receipts (such as date and total cost).
- Made an integration with AWS (S3, CLI, Textract) to build an API.
- Proposed and tested a lot of ideas to use ML algorithms in the project, such as:
 - text classification of user writings to suggest adding a corresponding tag,
 - speech-to-text and text-to-speech systems.
- Led one person who helped me with routine jobs and testing.
- Had experience in a startup.

Allied Testing

Moscow, Russia

SOFTWARE ENGINEER AND MATHEMATICIAN

2019

- Optimized an algorithm that processes data of a very high (but finite) dimension.
- Transferred the algorithm from MATLAB to Python and optimized it further using PyTorch, Numpy, Scipy, Ray, Numba and Cython.
- Results: original algorithm was accelerated by a factor of ≈ 200 .

PIM Solutions

Moscow, Russia

FINANCIAL ANALYST

2015 – 2018

- Participated in the derivation and testing of formulas for various calculations, did some kind of A/B testing.
- Did various kinds of normalization, preprocessing and analysis of big data.
- Built some financial models.

Honors & Awards

OLYMPIADS

2019	Winner, 1st degree, NES MAE Olympiad	<i>Moscow, Russia</i>
2019	Winner, 2nd degree, NES MAF Olympiad	<i>Moscow, Russia</i>
2019	Winner, 3rd degree, MSU Universiade in Applied Mathematics and Computer Science	<i>Moscow, Russia</i>
2019	Winner, 3rd degree, HSE Olympiad in Applied Mathematics and Computer Science	<i>Moscow, Russia</i>
2015	Winner, 3rd degree, ITMO Open Informatics Olympiad	<i>Moscow, Russia</i>
2015	Winner, 2nd degree, Lomonosov Olympiad in Computer Science	<i>Moscow, Russia</i>
2015	Winner, 3rd degree, BMSTU Olympiad in Physics	<i>Moscow, Russia</i>
2015	Winner, 2nd degree, BMSTU Olympiad in Mathematics	<i>Moscow, Russia</i>

SCHOLARSHIPS

2020 – 21	Recipient, NES Alumni Association Scholarship	<i>Moscow, Russia</i>
2017 – 18	Recipient, Increased State Academic Scholarship (MSU, for academic excellence)	<i>Moscow, Russia</i>
2015 – 17	Recipient, Moscow Government Scholarship	<i>Moscow, Russia</i>