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.
- Project:
    – International Macroeconomics Project (Python, 2020).
- NES Alumni Association Scholarship (2020 – 2021).

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).
- Projects:
    – Stochastic Analysis and Modeling (MATLAB, 2018, in Russian).
    – Single-Player Game "Terrain Simulator" (C++, 2017).
    – Unix Command Shell Emulator (C, 2016).
- Increased State Academic Scholarship (2017 – 2018).
- Moscow Government Scholarship (2015 – 2017).

Skills

Programming	Python, C, C++, Java, MATLAB, SQL, LaTeX
Software / Tools	Git, Linux, JetBrains (PyCharm, IntelliJ IDEA, CLion), Numba, Ray, Cython, AWS (S3, Textract, CLI), Docker
Machine Learning	Statistics, Machine Learning Algorithms (Scikit-learn), Deep Learning (PyTorch), Reinforcement Learning
Languages	Russian (native), English (Advanced)

Experience

Raiffeisen Bank *Moscow, Russia*

INTERN IN QUANTITATIVE TRADING *2021 – now*

- Did cleaning and preprocessing of big financial data.
- Participated in the trading strategy design.

LivLet (startup) *London, United Kingdom (remote)*

MACHINE LEARNING RESEARCHER AND ENGINEER *2020 – 2021*

- Implemented a NER-based algorithm to extract various fields from images of invoices.
- Contributed to the product quality by proposing and testing the following ML-related features:
    – text classification of user writings to suggest adding a corresponding tag,
    – speech-to-text and text-to-speech systems.
- Supervised a junior colleague, who helped me with routine work and testing.

Allied Testing *Moscow, Russia*

SOFTWARE ENGINEER AND MATHEMATICIAN *2019*

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

PIM Solutions *Moscow, Russia*

FINANCIAL ANALYST *2018*

- Participated in the derivation and testing of financial formulas, did A/B testing.
- Proposed and implemented an algorithm to convert a string with an address into separate fields.
- Did normalization, preprocessing and analysis of big data.