Igor Timofeev

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Employement History:

- May 2022 january 2024, Gero: Development of denoising and batch removal techniques in biological data. Obtaining embeddings of cellular perturbations to evaluate the functional similarities among them. Multi-VAE, SemiVAE, FactorVAE, iVAE, ScVI, DVAE, etc.
- march 2021 august 2021, Yandex: Product analyst for Yandex Search. Improving offline Entity Search metrics, analyzing growth points and customer preferences.
- august 2020 february 2021, IE Shapiro Leonid Lyovich: Option pricing model development using machine learning and Python. Fitting asset prices with options data. FFT and Lewis method was used for option prices calculation and asset price was modeled by tempered stable distribution.

Additional education and competitions:

- Bioinformatics Summer School 2019 on the topic "Bioinformatics in Research of Aging and Biological Development" and the project. \bigcirc
- 4th place in SignalNeuroHack hackathon with Huawei research project. \bigcirc
- Completed the course "Deep Learning" пальцах (Put Simply)" by Computer Science Center and Novosibirsk State University. Also Reinforcement Learning tasks using DQN algorithm and Policy Gradient. \bigcirc
- Specialization "Machine Learning and Data Analysis" by Yandex on Coursera. \bigcirc
- Stepik courses certificates.
- Some lectures and books in addition university literature: Blastim courses, STAT115 Harvard, Molecular Biophysics(Eric Lindahl), Deep Generative Modeling, Watanabe, David Tong lectures, etc.
- Reading Group Key Phenomena in AI Risk, reading group in Belgrade about AI Safety Fundamentals, EA Serbia Introductory Course

First Education:

St. Petersburg State University, Department of Mathematics and Mechanics, Specialist degree in Astronomy (equivalent of Bachelor + Master),

Sep, 2014 - June, 2019.

Degree Thesis:

Topic: "The Effect of Close Approach to a Planet on the Rotation of an Asteroid".

In this work I have developed a program in C++ using Boost library and numerical methods for calculating an asteroid trajectory in the Solar system. 😱

Second Education (interrupted):

National Research University Higher School of Economics.

Master of Computational Biology and Bioinformatics, Sep, 2021 - Apr, 2022

Unfortunately, it was not finished due to the war in Ukraine. As well as scientific work about aging clocks.

Knowledge and skills:

- Machine Learning: PyTorch, TensorFlow, scikitlearn, etc.
- Python, C/C++.
- Calculus, Algebra, Numerical analysis, Probability theory and Mathematical Statistics, Algorithms and Data Structures.
- Physics: Statistical Physics, Quantum Mechanics, etc.
- Molecular Biology and Biotechnology, Algorithms in Bioinformatics.
- Data Analysis: SQL, Statistical Hypothesis Testing C).