Igor Timofeev

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Russian refugee in Turkey :)

Career objective:

Research Assistant - Bionformatics of Aging

Employement History:

- 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 Lvovich: 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.
- October 2019 - July 2020, Special Technology Center (STC): Video Object Detection and Online Tracking with YOLO from AlexeyAB/darknet open source repository (DarkNet extension), Kalman filter and Hungarian algorithm using C/C++. Python for parsing the VisDrone dataset and for testing. Also used by OpenCV, DVC, CUDA.

Additional education and competitions:

- Bioinformatics Summer School 2019 on the topic “Bioinformatics in Research of Aging and Biological Development” and the project.
- 4th place in SignalNeuroHack hackathon with Huawei research project.
- Completed the course “Deep Learning на пальцах (Put Simply)” by Computer Science Center and Novosibirsk State University. Also Reinforcement Learning tasks using DQN algorithm and Policy Gradient.
- Specialization “Machine Learning and Data Analysis” by Yandex on Coursera.
- Stepik courses certificates.
- The course Biology through the eyes of venture capitalists by Blastim.

First Education:

St. Petersburg State University,
Department of Mathematics and Mechanics,
Master of Astronomy,
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:

National Research University Higher School of Economics,
Master of Computational Biology and Bioinformatics,
Sep, 2021 - June, 2023.

Scientific work in progress:

Research Supervisor: Alexander Tyshkovsky (Harvard Medical School)
Topic: "Building of high-precision aging clocks based on gene expression data using deep learning methods and their application to search for optimal combinations of interventions that prolong life."

I am testing Variational Autoencoder with Disentangled Representation and an additional layer for predicting age.

Knowledge and skills:

- Machine Learning: PyTorch, scikit-learn.
- Python, C/C++.
- Calculus, Algebra, Numerical analysis, Probability theory and Mathematical Statistics, Algorithms and Data Structures.
- Molecular Biology and Biotechnology, Algorithms in Bioinformatics.
- Data Analysis: SQL, Statistical Hypothesis Testing.