

Anna Mazur

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EDUCATION

- **Yandex School of Data Analysis** Moscow, Russia
Master-level program in Computer Science & Machine Learning 2015 - 2017
 - Courses include: Algorithms, Machine Learning, Deep Learning, Natural Language Processing, Computer Vision, Reinforcement Learning
- **New Economic School** Moscow, Russia
Master of Arts in Economics 2012 - 2014
 - Specialization: Econometrics & Finance
- **Moscow State University** Moscow, Russia
The Department of Mechanics and Mathematics, PhD 2012 - 2015
 - Specialization: Extreme Value Theory; thesis defended in 2021
- **Moscow State University** Moscow, Russia
The Department of Mechanics and Mathematics, Graduate 2007 - 2012
 - Specialization: Probability Theory; additionally took courses in Actuarial and Financial Mathematics, GPA 5.0/5.0

ML ACTIVITIES

- **Reinforcement learning**
 - Research project in Reinforcement learning as part of the course by Yandex School of Data Analysis “Advanced Topics in Deep Reinforcement learning” 2020, implementation is available <https://github.com/AnnaNikitaRL/EVA>
 - Hugging Face course on Reinforcement Learning
 - Watched online lectures by David Silver; “Advanced Deep Learning & Reinforcement Learning Lectures” by DeepMind and read Sutton & Barto book “Reinforcement Learning”
 - “Reinforcement learning course” in Yandex School of Data Analysis
- **Diffusion**
 - Hugging Face Diffusion Models Course
 - Participation in Hugging Face sprint on Diffusion Models
- **Coursera courses**
 - “Deep Learning” Specialization by deeplearning.ai (2020)
 - “Reinforcement Learning” Specialization by Alberta University
- **Yandex School of Data analysis**
 - Reinforcement Learning (theory & notebooks on bandits, Q-learning, SARSA, approximate RL, DQN, DDQN, actor-critic applied to MountainCar-v0, REINFORCE applied to Cartpole, A3C applied to Atari KungFu, theory on PPO and TRPO etc.)
 - Deep Learning Course (theory & notebooks on optimisation, RNN, CNN, autoencoders, LSTM, Inception, seq2seq, GAN etc.)

- Computer Vision (theory & notebooks, in-class kaggle competitions: features detection, detection of faces, image segmentation, fine tuning of VGG-16 to classify birds, U-net applied to medical images etc.)
- Machine Learning (theory & notebooks, in-class kaggle competitions: KNN, Trees, Random Forest, Boosting, SVM etc.)
- Natural Language Processing (theory & notebooks, in-class kaggle competitions: bag of words, semantic analysis, POS-tagging, word2vec, seq2seq, transformers, LLMs)

• Other

- Participation in Anthropic Hackaton in London 2023
- Participation in Kaggle competitions: “Predicting Molecular Properties” 2019; Extracted features based on molecular properties, built a graph and applied Graph Convolutional Network
“LANL Earthquake Prediction”, 2019: Signal processing, extracting features, boostings, RNNs
- Attending reading groups by Yandex research group
- Attending conferences: “OpenTalks.ai” 2021; “Yandex NeurIPS NewYear afterparty 2020”

EXPERIENCE

• J.P. Morgan

Vice President, Quantitative Research

London, UK

January 2017 - Present

- predicting of rates dynamics and hedge ratios with machine learning techniques (neural networks with additional data augmentation; and pca, gpr etc)
- sales automation, rule-based approach and LLM application to sales inquiries
- development and support of the tools for trading desk
- building data product and data pipelines for further use by the analytical model
- development of the rates models and onboarding them to the strategic rates framework; writing documentation, testing
- research project on central bank statements analysis via the natural language processing approaches (tried several machine learning techniques as well as small neural networks)
- teacher assistant in Machine Learning course for QR

• J.P. Morgan

Intern, Quantitative Research

London, UK

May 2016 - October 2016

• Sberbank CIB

Junior Market Risk Analyst, Group of Models

Moscow, Russia

November 2014 - August 2015

• Moscow State University

Teacher Assistant in Probability Theory; Statistics

Moscow, Russia

September 2013 - July 2014

• Yandex

Intern Analyst

Moscow, Russia

December 2011 - April 2013

- Participation with the poster at the 21st ACM International Conference on Information and Knowledge Management (CIKM 2012) in Hawaii
- Participation with the paper at European Conference on Information Retrieval (ECIR 2013), Moscow

LANGUAGE SKILLS & COMPUTER SKILLS

- Native Russian, fluent English, pre-intermediate French, basic Romanian
- Python (+ PyTorch), C++

PUBLICATIONS

Session-based query performance prediction // CIKM '12: Proceedings of the 21st ACM international conference on Information and knowledge management

Intent-Based Browse Activity Segmentation // European Conference on Information Retrieval ECIR 2013: Advances in Information Retrieval

Gaussian copula time series with heavy tails and strong time dependence // Moscow University Mathematics Bulletin. 2015

Modeling and fitting of time series with heavy distribution tails and strong time dependence by Gaussian time series // Theory of Probability & Its Applications. 2018

Fitting time series with heavy tails and strong time dependence // Fundamentalnaya i prikladnaya matematika. 2018

On weak convergence of the tail empirical process for copula time series // Trudy MIPT. 2020

CONFERENCES

Presentation of poster work at 7th European Congress of Mathematics, Berlin, 2016; Talk at the International Conference "Probability Theory and its Applications" by Gnedenko, Moscow, 2012; Participation with the poster in the Satellite Conference "Copulae in Mathematical and Quantitative Finance" of the 6th European Congress of Mathematics, Krakow, 2012; Talk at the XX International conference "Lomonosov", Section Probability Theory and Statistics, Moscow, 2013; Participation in joint Microsoft Research/Yandex meeting in Seattle, 2011

NON-WORKING ACTIVITIES

Running, Tennis, Piano, Reading, Museums, Theatres, Surfing, Dancing