

# Nikita Kozodoi

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- o **◄** Berlin, Germany

## Education

04/2018 – present **PhD in Information Systems**, *Humboldt University*, Berlin.

Doing research and on machine learning applications for credit risk analytics.

10/2015 – 12/2017 M.Sc. in Economics and Management Science, Humboldt University, Berlin, GPA: 1.30.

Focused on business analytics, data science and applied predictive analytics.

09/2014 - 12/2016 M.Sc. in Economics, Higher School of Economics, Moscow, GPA: 9.58 of 10 (1.21).

Focused on econometrics and time series analysis. Diploma with honors.

09/2010 - 06/2014 **B.Sc. in Economics**, *Higher School of Economics*, St. Petersburg, GPA: 9.38 of 10 (1.31).

Focused on econometrics and marketing. Diploma with honors.

09/2000 - 07/2010 High School Diploma, High School 241, Saint Petersburg, GPA: 1.00.

## Work Experience

04/2018 - present Research Associate | Data Science, Monedo, Hamburg.

o developing solutions to mitigate the impact of sampling bias on scoring models

o performing profit-driven feature selection with multi-objective evolutionary algorithms

07/2016 - 03/2018 Research Assistant, Max Planck Institute for Human Development, Berlin.

o collected and prepared a large number of data sets

o benchmarked managerial heuristics against machine learning algorithms

o analyzed factors affecting the predictive performance

10/2014 – 12/2015 **Research Assistant**, *Institute for Statistical Studies at Higher School of Economics*, Moscow.

 $\circ$  preprocessed survey data for statistical analysis

o conducted the econometric analysis of survey data

#### Technical Skills

Programming Languages: Python, R, SQL IDE: VS Code, Jupyter, RStudio

Productivity Collaboration: Git, Slack, JIRA Deployment: AWS Sagemaker

Documents Office: LaTeX, MS Office, Apple iWork References: Endnote, Zotero

Packages Python: numpy, pandas, sklearn, pytorch, tensorflow, xgboost, lightgbm, hyperopt, matplotlib

R: mlr, caret, tidyverse (dplyr, ggplot2), data.table, xgboost, h2o, glmnet, plotly, knitr

Algorithms

ML: Boosting (XGB, LGBM, Catboost), Tree-based (RF, DT), LR, SVM, KNN

DL: CNNs, RNNs (LSTM, GRU), BERT, Autoencoders, GANs (DCGAN, CycleGAN)

**Supervised:** classification, regression, recommendation, time series

Applications

Unsupervised: anomaly detection, clustering, dimensionality reduction

CV: image classification, object detection, style transfer, image generation

NLP: sentiment analysis, text generation

#### Awards and Achievements

2018 Obtained Kaggle Competitions Expert status (4 silver and 2 bronze medals). Highest rank: 981

2016 Prize-winner of the student research paper competition in Computer Science held by HSE

2014 - 2017 Awarded with Oxford-Russia Fund (2014/15) and E-Fellows.net (2016/17) scholarships

#### Certificates

06/2020 Udacity Deep Learning Nanodegree: building CNNs, RNNs and GANs in PyTorch

05/2020 Udacity Machine Learning Engineer Nanodegree: deploying ML and DL models in AWS

## Software Packages

07/2020 - present **dptools**: Python package with helper functions for data preprocessing and feature engineering

09/2019 – present fairness: R package for computing and visualizing metrics of algorithmic fairness

## Selected Competitions and Hackathons

10/2019 **IEEE-CIS Fraud Detection**: top-3% and silver medal (2-people team, 6381 teams)

02/2019 Google Analytics Revenue Prediction: top-2% and silver medal (2-people team, 3611 teams)

12/2018 PLAsTiCC Astronomical Classification: top-5% and silver medal (3-people team, 1094 teams)

08/2018 Home Credit Default Risk: top-4% and silver medal (solo, 7198 teams)

06/2018 Data Science Game 2018: top-13 and special mention award (4-people team, 128 teams)

09/2017 Data Science Game 2017: top-9 and special jury award (4-people team, 145 teams)

#### Selected Publications

04/2020 N. Kozodoi, P. Katsas, S. Lessmann, L. Moreira-Matias and K. Papakonstantinou Shallow self-learning for reject inference in credit scoring ECML PKDD 2019 Proceedings, pp. 516-532 (https://doi.org/10.1007/978-3-030-46133-1)

09/2019 N. Kozodoi, S. Lessmann, K. Papakonstantinou, Y. Gatsoulis and B. Baesens

A multi-objective approach for profit-driven feature selection in credit scoring

Decision Support Systems, 120 (2019), pp. 106-117 (https://doi.org/10.1016/j.dss.2019.03.011)

# Languages

English Proficient user (C2)

IELTS band 8.0 certificate

German Advanced user (C1)

Language courses at HU Berlin

Russian Native speaker

## Skills and Interests

Key Skills

• Passionate about machine learning

• Strong motivation to learn and improve

Hobbies Football, Scootering, Piano

Excellent presentation skills

Good at meeting deadlines