



# Nikita Kozodoi

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- 🌐 <https://kozodoi.me> (blog)
- 🌐 <https://linkedin.com/in/kozodoi>
- 🌐 <https://github.com/kozodoi>

## Education

- 04/2018 – present **PhD in Information Systems**, *Humboldt University*, Berlin.  
Doing research 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 Scientist**, *Monedo*, Hamburg.
  - developing solutions to mitigate the impact of sampling bias on scoring models
  - performing profit-driven feature selection with multi-objective evolutionary algorithms
- 07/2016 – 03/2018 **Research Assistant**, *Max Planck Institute for Human Development*, Berlin.
  - collected and prepared a large number of data sets
  - benchmarked managerial heuristics against machine learning algorithms
  - analyzed factors affecting the predictive performance
- 10/2014 – 12/2015 **Research Assistant**, *Institute for Statistical Studies at Higher School of Economics*, Moscow.
  - preprocessed survey data for statistical analysis
  - conducted the econometric analysis of survey data

## Technical Skills

Programming	<b>Languages:</b> Python, R, SQL	<b>IDE:</b> VS Code, Jupyter, RStudio
Productivity	<b>Collaboration:</b> Git, Slack, JIRA	<b>Deployment:</b> AWS Sagemaker
Documents	<b>Office:</b> L <sup>A</sup> T <sub>E</sub> X, MS Office, Apple iWork	<b>References:</b> Endnote, Zotero
Packages	<b>Python:</b> numpy, pandas, sklearn, pytorch, tensorflow, xgboost, lightgbm, hyperopt, matplotlib <b>R:</b> mlr, caret, tidyverse (dplyr, ggplot2), data.table, xgboost, h2o, glmnet, plotly, knitr	
Algorithms	<b>ML:</b> Boosting (XGB, LGBM, Catboost), Tree-based (RF, DT), LR, SVM, KNN <b>DL:</b> CNNs, RNNs (LSTM, GRU), BERT, Autoencoders (SAE, VAE), GANs (DCGAN, CycleGAN)	
Applications	<b>Supervised:</b> classification, regression, recommendation, time series <b>Unsupervised:</b> anomaly detection, clustering, dimensionality reduction <b>CV:</b> image classification, object detection, style transfer, image generation <b>NLP:</b> sentiment analysis, text generation	

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## 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

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## 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

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## 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

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## 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)
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- 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)

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## 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>)

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## Languages

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|---------|-----------------------------|--------------------------------------|
| English | <b>Proficient user (C2)</b> | <i>IELTS band 8.0 certificate</i>    |
| German  | <b>Advanced user (C1)</b>   | <i>Language courses at HU Berlin</i> |
| Russian | <b>Native speaker</b>       |                                      |

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## Skills and Interests

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|------------|--|---------------------------------|
| Key Skills | ◦ Passionate about machine learning      | ◦ Excellent presentation skills |
|            | ◦ Strong motivation to learn and improve | ◦ Good at meeting deadlines     |
| Hobbies    | Football, Scootering, Piano              |                                 |