


# Nikita Kozodoi, Ph.D.

ML scientist working on the frontier of research & business. With PhD in ML and certified AWS expertise, rich experience in diverse ML areas and strong communication skills, I am passionate about using AI to solve challenging business problems.

 [kozodoi.me](https://kozodoi.me) (portfolio & ML blog)

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 [github.com/kozodoi](https://github.com/kozodoi)

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## Experience

- 07/2022 – present **Applied ML Scientist**, *Amazon Web Services*, Berlin.
- developing cutting-edge generative AI and ML solutions to solve diverse business problems
  - interacting with large-scale clients to implement ML usecases that deliver business value
  - leveraging AWS infrastructure to design, build and deploy custom ML solutions
- 04/2022 – 06/2022 **Project-Based Data Scientist**, *Simply Rational*, Berlin, freelance.
- identified customer segments and prototyped segment prediction models from incomplete data
  - analyzed A/B tests results to determine treatments improving customer repayment by up to 6%
- 04/2018 – 03/2022 **Data Science Research Associate**, *Monedo / Humboldt University*, Berlin.
- developed sample bias mitigation algorithms to improve model profitability by up to 3%
  - reduced data acquisition costs by up to 25% using multi-objective feature selection methods

## Education

- 04/2018 – 03/2022 **Ph.D. in Machine Learning, Information Systems**, *Humboldt University*, Berlin.  
Published 5 papers on ML for credit risk analytics with over 130 total citations. Degree with Honors.
- 10/2015 – 12/2017 **M.Sc. in Economics, Quantitative Methods**, *Humboldt University*, Berlin, GPA: 1.30 (A).  
Focused on Data Science and Predictive Analytics. Thesis topic: ML for box office forecasting.
- 09/2010 – 06/2014 **B.Sc. in Economics**, *Higher School of Economics*, Moscow, GPA: 1.31 (A).  
Focused on Statistics and Econometrics. Top-1 in the 4-year student ranking. Diploma with Honors.

## Selected Certifications

- 01/2023 **AWS Certified Solutions Architect Associate**. Showed comprehensive understanding of AWS services.
- 01/2022 **AWS Certified ML Specialty**. Demonstrated ability to build, train, tune and deploy ML models on AWS.
- 05/2020 **Udacity ML Engineer Nanodegree**. Learned to build and deploy ML models using Amazon SageMaker.  
Further AWS certifications and course completions are available on my website. [\[Certificates\]](#)

## Selected ML Projects

- 09/2018 – 02/2022 **Kaggle Master**. Won 18 competition medals. Reached top-1% of the global user ranking. [\[Projects\]](#)
- 05/2021 – 08/2021 **Text Readability Prediction**. Developed a PyTorch pipeline for text complexity prediction with transformers. Deployed a web app for scoring custom texts. Placed top-9% in the Kaggle competition. [\[App\]](#) [\[GitHub\]](#)
- 09/2019 – 04/2021 **Fairness: Package for Fair ML**. Built and maintained an R package with over 22k total downloads. Implemented calculation and visualization of fairness metrics. Wrote documentation. [\[Blog post\]](#) [\[GitHub\]](#)  
Further ML projects and their summaries are available on my website. [\[Portfolio\]](#)

## Selected ML Publications

- 06/2020 – present **ML Blog**. Publishing AI tutorials, competitive ML tricks, and other posts. Reached 10k monthly views. [\[Blog\]](#)
- 11/2021 **Fairness in credit scoring: Assessment, implementation and profit implications**, *EJOR*. [\[Paper\]](#) [\[GitHub\]](#)
- 04/2020 **Shallow self-learning for reject inference in credit scoring**, *ECML PKDD*. [\[Paper\]](#) [\[Talk\]](#)  
Further ML papers and talks are available on my website. [\[Publications\]](#)

## Technical Stack

Tools  Python, SQL, Docker  VSCode, Jupyter  AWS SageMaker, Lambda, EC2  Git, Asana, Trello

Libraries  Pandas, NumPy  PyTorch, Lightning  Scikit-Learn, XGBoost, LightGBM  Huggingface, Timm

## Soft Skills

- Languages **English** (C2), **German** (C1), **Russian** (native)
- Key skills
- strong motivation to learn and be curious
  - excellent communication skills [\[Public talks\]](#)
  - attention to detail and scientific mindset
  - rich experience of working in team projects