KSENIA LEGOSTAY

Berlin, Germany

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ABOUT

Data Science leader with 9 years in FinTech, currently driving fraud prevention at Klarna. I lead model development and cross-functional ML initiatives that deliver measurable impact on risk metrics. Proven track record in mentoring, production-grade ML, stakeholder alignment, and active contribution to the broader Data Science community.

SKILLS

Technical skills	Python, SQL, XGBoost, SHAP, scikit-learn, MLFlow, AWS, GCP, Docker
Soft skills	Leadership, Mentoring, Cross-functional collaboration, Stakeholder management
Languages	English (Full Professional), German (Full Professional), Russian (Native)

EXPERIENCE

Klarna – **Global Leader in BNPL Services** *Berlin, Germany*

Data Science Manager May 2025 – Present

Lead Data Scientist May 2023 – May 2025

Expanded impact from team-level delivery to domain-wide leadership and cross-functional collaboration:
- Drove cross-functional initiatives to detect and mitigate multiple fraud types, including first-party, third-party, bust-out fraud, etc.
- Served as Competence Lead for a group of five Data Scientists, guiding ML development across the User Account & Fraud Prevention domain (e.g., login policy fraud, transactional fraud).
- Fostered technical excellence through code reviews, and standardizing best practices in model development, monitoring, and interpretability.

Competence Lead, Senior Data Scientist – Fraud Prevention & Modeling Jun 2022 – May 2023

Extend from model development to team and process leadership:
- Own a fraud detection modeling roadmap across UK & AP: defined quarterly goals, prioritized model initiatives, and aligned deliverables with product and compliance stakeholders.
- Mentored and scaled talent within the Fraud Prevention domain, guiding two Data Scientists from junior/mid to senior roles.
- Facilitated knowledge sharing, conducted code reviews, and established best practices throughout the model development process.

Senior Data Scientist – Fraud Prevention & Modeling Dec 2021 – Jun 2022

- Built and maintained end-to-end fraud detection models for BNPL products across UK & AP, addressing card-not-present fraud, identity abuse, and account takeovers.
- Led full ML pipeline: ingestion, feature engineering, model training, validation, deployment, and metric monitoring.
- Enabled real-time fraud mitigation by translating model insights into actionable rules for analysts and decision systems.
- Developed interpretability framework (SHAP) to meet legal and regulatory standards.

Data Scientist Sep 2020 – Dec 2021

momox GmbH - European re-commerce leader *Berlin, Germany*

- Developed a real-time bidding framework for product recommendations based on predicted conversion rates.
- Built attribution models using the Shapley value framework.
- Designed customer behavior prediction pipelines using Google Cloud AI Platform and BigQuery ETL.
- Conducted technical and behavioral interviews to support Data Science hiring.

Data Scientist

Sep 2019 – Sep 2020

RatePAY GmbH - Europe's leading white-label provider of BNPL services

Berlin, Germany

- Built a real-time ML fraud detection framework, reducing false positives and optimizing profit through KPI-driven model evaluation.
- Designed and deployed a return prediction pipeline for e-commerce platforms.
- Developed models to forecast fraud and credit Value at Risk (VaR), enhancing risk-informed decision-making.

Research Assistant / Data Scientist

Mar 2017 – Aug 2019

Telekom Innovation Laboratories: T-Labs - R&D unit of Deutsche Telekom

Berlin, Germany

Worked on the German-Hungarian project in digital finance eBIZ:

- Analyzed real-world financial transaction networks.
- Developed a partner recommendation system for SMEs using APRIORI frequent itemset mining and graph-based relationship modeling.
- Built interactive data prototypes with RShiny for business-facing insights.
- Applied unsupervised pattern mining on unlabeled financial data to extract behavioral trends and anomalies.

Fraud and anomalies detection:

- Created a Node2vec-based method for detecting Ponzi and pyramid schemes.
- Conducted unsupervised node segmentation and solvency forecasting using ARIMA time series models.

EDUCATION

M.Sc. in Business Informatics, Technische Universität Berlin

Sep 2016 – Aug 2019

focus in Data Science and Machine Learning

Thesis: *"Unsupervised node segmentation in financial transactional networks"* (grade 1.7)

Diploma in Computational Mathematics and Cybernetics, Kazan Federal University

Sep 2008 – Jun 2013

Major in Applied Mathematics, *awarded with distinction*

Diploma in Management, Kazan Federal University

Sep 2010 – May 2014

Major in Corporate Management, *awarded with distinction*

OPEN SOURCE & OUTREACH

Conference talk: Building Fraud Detection Services for Business at the Street Smart AI meetup — Jan 2024

Open Source contribution: scikit-uplift (sklift) - sklearn-style python package for uplift modeling — Summer 2021

Pro bono initiative for the German tech community: Salary survey report — 2021 – 2024

Selected Data Science projects: Project Portfolio — 2019 – 2024