

# Kseniia Alekseitseva

MACHINE LEARNING ENGINEER, 3+ YEARS OF EXPERIENCE

+7(985)887-54-92 | kseniia.alekseitseva@gmail.com | <https://www.linkedin.com/in/y-ksenia>

## Work Experience

### Constructor (Sports tech)

Sofia, Bulgaria

Machine Learning Engineer

Nov 2021 - Present

- Accelerated the process of preparing customer-centric presale projects by 10x, by optimizing a pipeline of model retraining and transitioning to a few-shot learning approach, resulting in improved customer satisfaction
- Improved the scene classification model for the video indexing project, enhancing performance, scalability, and production readiness
- Set up MLOps pipelines in CI-CD for production models, using DVC, MLflow, and Prefect, which significantly improved maintainability and stability
- Mentored junior coworkers

### Evocargo (Self-driving cars)

Moscow, Russia

Computer Vision Engineer

Oct 2020 - Nov 2021

- Developed and implemented a road segmentation model, enhancing real-world navigation accuracy by 20%
- Designed and built an infrastructure for machine learning model training, incorporating performance measurement tools and callbacks, resulting in a significant reduction in model development time
- Introduced Agile practices and mentored interns, culminating in a notable improvement in overall team productivity

### Jet Infosystems (Industry consulting)

Moscow, Russia

Data Scientist

Feb 2020 - Jun 2020

- Led the development of an automatic roundwood number detection system leveraging classical computer vision methods, substantially enhancing measurement accuracy over traditional manual methods
- Orchestrated the creation of a comprehensive end-to-end pipeline for sales forecasting, driving a 15% improvement in forecast accuracy

### Yandex (Advertising)

Moscow, Russia

Data Scientist

Jun 2019 - Aug 2019

- Implemented and tested the xDeepFM model on an unprecedentedly large dataset of 50 billion users, providing crucial insights for future model performance enhancements

### MIPT (Computer and Mathematical Modeling of Biological Systems Lab)

Moscow, Russia

Researcher

Oct 2016 - Dec 2018

- Developed a hybrid computational model of Hepatitis B, analyzing DNA structure and behavior during packaging into the capsid using MRG-CG techniques
- Conducted computational nanoindentation experiments, comparing findings with in vitro studies, thereby contributing valuable insights into the properties of Hepatitis B

## Education

### Skolkovo Institute of Science and Technology (Skoltech)

Moscow, Russia

MSc in Information Science and Technology

Sep 2018 - Jul 2020

### Moscow Institute of Physics and Technology (MIPT)

Moscow, Russia

MSc in Applied Mathematics and Physics

Sep 2017 - Jun 2019

BSc in Applied Mathematics and Physics

Sep 2013 - Jun 2017

## Additional Experience and Achievements

- Language Proficiency: English (C1), German (A2), Russian (C2)
- Contributed to the development of the Catalyst open-source framework, enhancing the efficiency and reproducibility of machine learning pipelines
- Contributed as a key team member to secure a position in the top 1% (15th place out of 2500 competitors) in the Enzyme Thermostability Prediction Kaggle competition, showcasing effective collaboration and problem-solving in predictive modeling
- Collaborated with Constructor University on a Cell and Cilia Detection project, leveraging classical computer vision techniques for precise localization and parameter analysis of cilia

## Skills

### Programming Languages

Python, SQL, Bash

### Libraries/Frameworks

PyTorch, OpenCV, Scikit-learn, Pandas, XGBoost, LightGBM, CatBoost, SciPy, NumPy, Optuna, Keras

### Tools

Git, Docker, Prefect, DVC, MLflow, AWS, GitLab CI/CD, Jira

### Soft Skills

Team Player, Effective Communication, Project Management