# Evgeniia Sivets

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## Summary

Machine Learning Scientist based in the Germany, with over 5 years of experience in developing ML/DL solutions. Started with research on graph algorithms at HSE, transitioned to an engineering role in the antifraud team at Huawei RRI. Most recently at Picsart, focused on generative AI, image enhancement, and optimizing model performance. Holds a Master's degree in data science and a solid academic background in math.

Technical Skills: Python, PyTorch, NumPy, Pandas, Sklearn, Hydra, Streamlit, Gradio, Slurm, Git, Bash, Linux

#### Work Experience

Picsart AI Research Berlin

ML Scientist

Jul. 2021 - Jul. 2024

- Developed and optimized GAN/diffusion-based model pipelines for font generation projects
- Contributed significantly to libraries with over 5 users, offering a range of enhancing options for StyleGAN/SD models, provided guidance, and collaborated on research
- Enhanced SD quality by 6% FID through the implementation of custom CLIP, improving reference-guided generation, and introducing advanced product features
- Improved StyleGAN quality by 7% FID by leveraging extended high-quality data, custom losses, embeddings, DINO-based classifiers, and architectural modifications
- Designed a unified framework for GANs compression to accelerate enhancement technologies in Picsart editor, achieving a 17x reduction in memory consumption and a 5x increase in model inference speed
- Engaged in 2 hackathons and showcased their outcomes as new products in a live demo format

Tech stack: Python, Pytorch, Git, DVC, Slurm, Gradio, Streamlit, StyleGAN, StarGAN, CLIP, Stable Diffusion

# Huawei RRI, CBG Cloud Security Team

Moscow

Junior Engineer

Aug. 2020 - Jul. 2021

- Built models and data pipelines to detect client activities and content within Huawei applications
- Collected datasets of text comments and image avatars, covering more than 6 sensitive categories
- Maintained and validated content filtering using FP and FN metrics, achieved a reliable 0.97 classification model accuracy and a 0.94 macro F1 score for avatars

Tech stack: Python, NumPy, Pandas, Sklearn, NLTK, Pymorphy2, CatBoost, Keras, Selenium

# HSE, Laboratory of Complex Systems Modeling and Control

Moscow

Junior Researcher

Jan. 2019 - Dec. 2019

- Conducted research on mathematical modeling of complex networks by employing graph algorithms, resulting in preliminary proceedings publication
- Investigated random graphs as stochastic block models, optimized modularity in community graphs using over 4 clustering methods, including a custom algorithm, greedy, Louvain, and k-means

Tech stack: Python, NumPy, Pandas, Sklearn, NetworkX, Node2Vec

## Tinkoff Bank, Insurance Department

Moscow

Analyst Intern

Jul. 2019 - Aug. 2019

• Processed and analyzed customer databases, establishing a pipeline from data collection to the development of predictive models for determining optimal insurance pricing

Tech stack: Python, Sklearn, SQL

#### **PROJECTS**

#### Distilling GANs for Photorealistic Portrait Generation task, Master's thesis

• Proposed a general GAN distillation method, outperforming StarGANv2 on public datasets with 22x less memory consumption, 5x faster inference, and a 4% FID improvement in generation quality

#### Scientific Conference SYRCoSE, May 2019

• Presented research findings on behavioral pattern analysis in transaction graphs, featured in the paper "Ethereum Blockchain Analysis using Node2Vec"

# EDUCATION

### Moscow Institute of Physics and Technology

Moscow

Master's degree in Informatics and Computer Science, Cum Laude

Sep. 2019 - Jul. 2022

#### Yandex School of Data Analysis

Moscow

Additional Education, Major: Data Science

Sept. 2019 - Jun. 2021

Courses: ML, DL, NLP, Computer Vision, GANs, RL, Algorithms and Data Structures, Statistics

# National Research University Higher School of Economics

Moscow

Bachelor's Degree in Mathematics

Sep. 2015 - Jun. 2019