Evgeniia Sivets

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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 co-authored research papers
- Enhanced SD quality by 6% FID through the implementation of custom CLIP, improving reference-guided generation, and introducing advanced features for inference
- 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, 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, employing algorithms on graphs
- 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
- Presented novel approaches in preliminary proceedings

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

Education

Moscow Institute of Physics and Technology — **Moscow**

- Master's degree in Informatics and Computer Science — *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*

Skills

Programming & Tools	Python, PyTorch, NumPy, Pandas, Sklearn, Hydra, Streamlit, Git, Bash, Linux
Languages	English (Proficient), Russian (Native)

Projects and Research Experience

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"