Taisia Penskaya

Saint Petersburg, Russia | +79210938070 | taya.penskaya@gmail.com | LinkedIn | GitHub

EDUCATION

Moscow Institute of Physics and Technology   **Moscow, Russia**
Master of Science, Artificial Intelligence   *Expected Graduation Date: Jun 2023*

ITMO University   **Saint Petersburg, Russia**
Bachelor of Science, Computer Science   *2021*
- Degree Thesis: *Pose Guided Person Image Generation with Detailed Segmentation*
- Course Thesis: *STatistical Inference Relief (STIR) feature selection*

Physics and Mathematics Lyceum No. 239   **Saint Petersburg, Russia**
Secondary Education   *2017*

WORK EXPERIENCE

Tinkoff   **Remote**
Computer Vision Researcher   *Feb 2022 - now*
- Investigating and comparing current lipsync approaches (Live Speech Portraits, Wav2Lip, and others) to understand the general ideas used, their new capabilities, as well as their limitations on high-resolution datasets, like VoxCeleb2, HDTF
- Conducting research on lipsync metrics and losses to make nonblurring lips and improve quality of talking face generation via refining image quality, lip synchronization, and mouth shape

PoPolochkam   **Saint Petersburg, Russia**
Computer Vision Engineer   *Aug 2021 - Nov 2021*
- Created OCR system to recognize groceries type, cost, and other text in FoodTech domain data; OCR results were used to build a classifier that faced a 12% increase in F1-score on 5k image-label test manual data which led to 2% increased retention
- Implemented face recognition system to classify if a person reached employment age requirements

JetBrains   **Saint Petersburg, Russia**
Machine Learning Researcher (Intern)   *Oct 2020 - Jul 2021*
- Applied various deep learning models, including RNNs, Molecular Transformer and GNNs to retrosynthetic reaction prediction task on USPTO dataset, which contains 50k reaction examples
- Researched and implemented more than 10 metrics, based on ranking, similarity, and reaction properties for measuring the performance of retrosynthesis solutions

ADDITIONAL EXPERIENCE

Projects: Hair Classifier, Pose Transfer, C++ Parser on Haskell, and more
Hackathons: Participant in 5+ hackathons, including multiple top 3 awards
Online Courses: GANs, Supervised / Unsupervised Learning, Statistics, and more

SKILLS

Skills: Deep Learning (GAN, VAE, NeRF), Classic Computer Vision (image filtering, edge detection, keypoint extraction, OpenCV), NLP (LSTM, word2vec, transformers, nltk, gensim), Machine Learning (trees, boosting, clustering), Python (PyTorch, surprise, optuna, wandb, flask), SQL (MySQL, MongoDB, PostgreSQL, Vertica), C++, Java, Haskell