**Taisia Penskaya**

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| **EDUCATION** |
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**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** |
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**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** |
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[**Projects**](https://github.com/TayaPenskaya): [Hair Classifier](https://github.com/TayaPenskaya/hair_classifier), [Pose Transfer](https://github.com/TayaPenskaya/Diploma), [C++ Parser on Haskell](https://github.com/TayaPenskaya/harser), and more

[**Hackathons**](https://github.com/TayaPenskaya/CV/blob/master/links/hackathons.md): Participant in 5+ hackathons, including multiple top 3 awards

[**Online Courses**](https://github.com/TayaPenskaya/CV/blob/master/links/courses.md)**:** GANs, Supervised / Unsupervised Learning, Statistics, and more

| **SKILLS** |
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**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