VADIM TIMAKIN

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SUMMARY

2.5+ years experience in Machine Learning. Kaggle Competitions Expert (Top 0.14% worldwide). I'm looking for a ML-engineer or related job. Having experience in solving problems from different ML fields, most of my projects relate to the computer vision field.

SKILLS

Tools:
Python (advanced), C++ (basic), Algorithms, Data Structures, Full ML-stack (PyTorch, WandB, NumPy, Pandas, matplotlit, cv2, sklearn), Model optimization stack (distillation, quantization, pruning), Linux, SQL.

Experience in:
Classic ML, Classification (multi class/label), Regression, Segmentation, Detection, Optical Character Recognition (OCR), Image Captioning, Transformers, Video Processing, GAN's, Signal Processing, Large-scale tasks.

Languages:
Russian (Native), English (Advanced)

ML COMPETITIONS CAREER

Image Matching Challenge 2022 [GitHub] May 2022 - June 2022
Result: 28 / 642 (Silver medal).
The stereo matching task. I used a wide range of models (LoFTR, SuperGlue, DKM, ASLFeat, SGMNet), resize calibration and appropriate number of keypoints for each model in my solution.

NTO AI Olympics 2022 [Code release soon] January 2022 - May 2022
Result: 3 / 50 finalists ($10000).
The end-to-end OCR task. We trained YOLOV5 model for the words detection. For the OCR part of solution we used two-headed architecture (Transformer + CTC) with Convnext. We trained it with a complex pre-processing, augmentations and external data. On inference we applied batch inference and custom post-processing.

RSNA-MICCAI Brain Tumor Radiogenomic Classification [Solution] October 2021 - October 2021
Result: 9 /1555 (Gold medal).
The 3D classification task. My final solution is an ensemble of the 25 Efficientnet-3D models trained on a single MRI type. I blended models trained on different seeds and used a large image size for inference to make my solution as stable as possible.

AI Crowd AI Blitz [GitHub] March 2021 - March 2021
Result: 1 / 280 ($100) + Contiburion Award Prize ($100).
The multitask competition, which includes 5 different classification, detection and puzzles tasks. I built validation based on K-fold CV, used classic CNN's and EfficienetDet as architectures and augmentations to improve the score. I also managed to win Contiburion Award Prize for sharing my pipeline.

AIJJ 2020 Digital Petr Track [GitHub] [Article] October 2020 - November 2020
Result: 2 / 70 ($5000).
The OCR task - recognition of Peter the Great's manuscripts. I used Transformer + CNN architecture, tried different augmentations, CNN models, Pre-Processing, Post-Processing and Ensembling to improve score.

EDUCATION / COURCES / CERTIFICATES

Deep Learning School by MIPT (1st part - CV) [Certificate] January 2020 - June 2020
Deep Learning School by MIPT (2nd part - NLP) [Certificate] September 2020 - January 2021
C++ White Belt by Yandex and MIPT [Certificate] July 2020 - September 2021
MAEI Multidisciplinary Gymnasium 13 (GPA: 4.0/4.0) 2011 - Present, Graduation - 2022

SOME PERSONAL PROJECTS

Dataset Fixer [GitHub] A utility for sorting, filtering, and transformation of datasets.
Style Transfer Telegram Bot [GitHub] Style Transfer Telegram Bot based on GAN.
Price Evaluator Bot [GitHub] Telegram bot that predicts the cost of clothing by an image.

ODS Awards 2021 Winner The best annual progress in competitions.