Timofey Brayko

ML-Engineer
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SUMMARY

Machine Learning enthusiast with 2 years of experience specializing in CV and NLP areas. Gained practical experience applying tools such as PyTorch, Transformers, and VLLM through individual and group projects. Passionate about exploring Explainable ML and creating valuable DL solutions to solve complex problems.

EXPERIENCE - 2 YRS

PLATES DETECTION

May 2025 - Present

A project to detect and recognize car license plates in post-Soviet countries, aiming to build a solution that runs on a Raspberry Pi.

- Implemented Canny Edge and Hough algorithms with OpenCV.
- Trained D-Fine and YOLOv11 models for plate detection.
- Improved metrics and expanded dataset with a Semi-Supervised learning.
- Currently, enhancing safety by detecting vehicles in the frame.

ITECH INC UZBEKISTAN github.com/Shintifo/Signex

May – Aug 2023

Group project for stamps and signature detection.

- Trained YOLOv11 for detection and EfficientNet for signature recognition.
- Completed a full cycle of preparing data.
- Successfully bound Swagger API services with deployed models.

PROJECTS

A-SHOT github.com/IU-Capstone-Project-2024/A-Shot

May - Aug 2024

A-Shot is a multiplatform tool that leverages computer vision to simplify the photo culling process for photographers.

- Integrated ML model in deployment with Torch + ONNX
- Conducted research on existing solutions
- Optimized SuperGlobal model for the project

DIFFUSION-PIONEER

First attempt to create Diffusion models using HuggingFace.

- Used HF Unet as base for Diffusion model
- Trained unconditional model on butterflies dataset
- Applied CLIP for a conditional generation with COCO dataset

HAKATONS

OZONCUP

Aug 2024

For the hackathon, our team had to train a model for recognizing cigarettes on the images to moderate products in an online store.

- Explored and trained numerous Visual Transformers
- Improved baseline F1-score from 87.4% up to 97.79%
- Experimented with preprocessing approaches
- Greatly expanded and diversified dataset

EDUCATION

INNOPOLIS UNIVERSITY

Bachelor of Computer Science
Expected: July 2026
Track of Applied Artificial Intelligence
GPA: 4.5 / 5.0

BEIJING INSTITUTE OF TECHNOLOGY

Bachelor of Computer Science
Spring Semester 2024 | China Exchange Program
GPA: 4.0 / 5.0

SKILLS

PROGRAMMING

- Python
- C/C++
- Java

TECHNOLOGY

PyTorch • Numpy • Pandas
Transformers • Sklearn • OpenCV
Spark • HIVE • Hadoop
NLTK • ONNX • PostgreSQL
Linux • Docker • LaTeX

ML EXPERIENCE

YOLO • CLIP • EfficientNet
VLM • ViT • MobileNet
Stable Diffusion • GAN • ResNet
BERT • GPT • T5
VLLM •

LINKS

- **Github:** Shintifo
- **LinkedIn:** timofey-brayko
- **Telegram:** Shintifo