Safuan Iusupov

Computer Vision & Machine Learning Engineer, **2.5 years +** experience

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ABOUT

CV/ML Engineer with 2.5+ years of experience in research and applied projects, including **team-leading** and **end-to-end ML pipelines** from data to deployment. Specialized in **AI**, **computer vision, anomaly detection, and object detection, 3D computer vision**; skilled in **deep learning, classical CV, model optimization**. Experienced lecturer (MIPT & Yandex), passionate about **teaching and combining CV, DL, and LLMs** for more functional AI.

EXPERIENCE

01/2025 – 08/2025 | **CV/ML ENGINEER** | Freelance | *0.6 years*

- Built anomaly detection pipeline for heating map videos, achieving **1.6× faster** per-frame processing with a non-DL approach.
- Automated preprocessing & class extension for neural models, cutting fine-tuning time from **1 day to 3 hrs**.

01/2023 – 12/2024 | **CV/ML ENGINEER** | MIPT, Ekran | *2 years*

- Developed Autoencoder-based anomaly detection, **+15% detection rate** on sonar data.
- Fine-tuned YOLO models & semantic segmentation pipelines, **+13.6% precision**.
- Designed clustering methods for grayscale sonar, **+2.2% accuracy**.
- Delivered **end-to-end ML pipeline**: data (CVAT), training, deployment.
- Optimized deployment: **Python → C++**, Dockerized pipelines.
- Article ***Navigation and Hydrography*** **(June 2024, p.124-138)**, and **presented findings at multiple conferences**.

07/2023 – 07/2024 | **ASSISTANT LECTURER IN MACHINE AND DEEP LEARNING** | Yandex | *1 year*

- Delivered **seminars on core ML and CV algorithms**.
- Designed teaching materials & Python notebooks; recorded video lectures on core ML methods.
- Conducted workshops for students about NLP basics

SKILLS

- **Programming & ML Frameworks**: Python (PyTorch, TensorFlow, scikit-learn, OpenCV, Pandas, NumPy), YOLO, Ultralytics, C++, Nerfstudio, MATLAB
- **Computer Vision**: Image segmentation, anomaly/object detection, Structure-from-Motion (SfM), COLMAP, Synthesizing novel views, NeRF, RPCA, VGGT, 3D Gaussian Splatting
- **NLP & LLMs**: Retrieval-Augmented Generation (RAG), LLM fine-tuning, LoRA, Ollama
- **Tools & Platforms:** CVAT (data annotation), Docker, Git, Linux (terminal, Bash), YouTrack, Confluence
- **Languages:** English — B2 (IELTS)

PROJECTS/COMPETITIONS

- 09/2025 - 10/2025 | Huawei 2025 Munich Tech Arena competition (Cloud team)
- 04/2025 - 05/2025 | RAG-Based NLP Pipeline with Evaluation and Local Voice Assistant (POLIMI)
- 01/2025 - 02/2025 | Optimizing the Viewing Graph - Structure from motion (SfM) (POLIMI)
- 10/2024 - 01/2025 | Recommender System Competition — Book Recommendation (POLIMI)
- 11/2024 - 12/2024 | Blood Cell Classification & Mars Terrain Segmentation – DL Competition (POLIMI)
- 04/2024 - 04/2024 | Phystech Radar Tech Challenge (3d place)
- 04/2023 - 06/2023 | NTI Up Great Technology Competition "Emergency Search" — Satellite No. 1

EDUCATION

- 06/08/2024 – CURRENT Sundsvall, Sweden | Erasmus Mundus Joint Master in Imaging program
- 01/09/2020 –30/06/2024 Moscow, Russia | **BACHELOR in INFORMATICS AND COMPUTER ENGINEERING**
  Moscow Institute of Physics and Technology (MIPT). Important courses:
  - 01/09/2022 – 30/06/2023 Moscow, Russia | MACHINE LEARNING COURSE/MACHINE LEARNING ADVANCED COURSE MIPT (Department of Applied Mathematics and Computer Science)
  - 01/09/2021 – 31/12/2021 Moscow, Russia | COMPUTER VISION COURSE MIPT