Kopylov Aleksei

TL;DR

Deep Learning Engineer proficient in various domains: Computer Vision, NLP, Recommendation Systems, Time Series, Speech.

Specialise in the end-to-end development of ML systems, following to best MLOps practices. Led teams up to 4 developers.

Bachelor of Computer Science ULSU

CONTACT

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- **Linkedin**
- # Tbilisi, Georgia
- Russian, English

STACK



TensorFlow, PyTorch, HuggingFace, scikit-learn, Keras, Catboost, CUDA



pandas, numpy, asyncio, OpenCV, dask, FastAPI, geopandas, Label Studio, Plotly, dash



Docker, K8s, Dagster, Gitlab CI/CD, DVC, wandb, MLflow, SQL, Clickhouse, Postgres, DuckDB, Grafana, Git, Linux

ML EXPERTISE

Computer Vision: Pose Estimation, Object Detection, Classification, Object Tracking, OCR, GAN, Segmentation, AR

Text: LLM, NER, Transformers, NLP

Tabular: Time Series Analysis, Recommendation Systems, Forecasting, Classification, Clustering

Sound: Speech to Text, Denoising

CAREER [4 years of experience]

Head of Data Science at Gurtam [2022-2024]

Spearheading team growth; recruiting, developing, and mentoring ML/DS specialists; coordinating hardware infrastructure requirements; proactively identifying and leveraging new ML applications.

Handling Big Data pipelines - 4 million real objects with hundreds of features (**petabytes of data that constantly changing**).

Integrated LLM to streamline Q&A on multimodal and dynamically evolving documentation, reducing support department's workload.

Reduced client overwhelm through tailored **recommendation systems**, leading to a lesser load on the business development department.

Pioneered integration of MLOps, CI/CD, DWH, and Data Marts in the production environment that significantly reduced the time of task completions and made solutions robust.

Performed in-depth research and analysis of telematic data that enhanced data-driven business decisions.

Machine Learning Engineer at Zebrains [2020-2022]

Led the architectural design and strategic roadmap development for ML modules, guiding projects from concept through to production.

Led the development of an AR + ML application for virtual fitting of rings and bracelets (**3D Hand Pose Estimation**), showcased at several exhibition.

Led the development of a Speech Recognition system for video calls

Developed a service for extracting and processing complex multimodal data from documents (OCR, NLP, NER).

Engineered a solution for **Detecting and Tracking Cars** with **OCR**.

Introduced **MLOps** in production environment.

Developed a Python framework for synthetic image dataset generation, substantially enhancing ML model accuracy.

Developed a **Data Mart** for the management team, enhancing data analysis and reporting capabilities.

University Lecturer (Machine Learning) at <u>ULSU</u> [2021-2022]

Numerous of my pupils now excelling in the ML industry.

Developed and instructed a ML course, with focus on hands-on exercises and production approaches.

Managed ML internships; judged ML Hackathon.

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