

Denis Baldakov

AI / Machine Learning Engineer

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AI and Machine Learning graduate specializing in machine learning and computer vision, with internship experience across cybersecurity and enterprise AI. Focused on building and deploying ML models for automation and intelligent systems.

EDUCATION

King's College London

2023 – 2026

BSc (Hons) Artificial Intelligence — Upper Second-Class Honours (2:1)

- Relevant coursework: Machine Learning Theory, Deep Learning (CNNs, optimization), Data Science & Feature Engineering, LLMs & NLP Systems, and Cloud AI Deployment (containerization, model versioning, API-driven ML systems).

WORK EXPERIENCE

DS Corporate — AI Integration Developer (Intern)

Jun 2025 – Aug 2025

Education Company

- Implemented multi-agent systems for top management to automate internal workflows.
- Conducted an audit and research for optimization of labor and introduced a new standard of work.
- Reduced manual reporting time by 40%.
- Participated in SPIEF 2025 as a company representative.

Group-IB — Anti-Fraud Analyst (Intern)

Jun 2024 – Aug 2024

Global Cybersecurity Company

- Participated in an anti-fraud investigation unit in the META region.
- Analyzed real-world cyber-fraud cases: banking account takeover, authorized push payment (APP) fraud, and mule-account infrastructure.
- Researched automation tools used by cybercriminals, including Selenium, PhantomJS, anti-detection browsers, and AI agents.
- Improved the company's internal research base.

PROJECTS

Self-Hosted LLMs for Unit-Test Generation — Dissertation — github.com/Sofa3xpert/slm-unit-test-generation

Built a multi-agent (Programmer→Tester) pipeline that benchmarks four self-hosted small language models against Claude for automated unit-test generation on HumanEval and MBPP, scored by line coverage, mutation and functional accuracy. Stack: Python, LM Studio, Anthropic SDK.

YOLOv5 + MLflow Microservices — MLOps — github.com/Sofa3xpert/yolo-mlflow-microservices

Containerised object-detection platform: a YOLOv5 FastAPI service with MLflow experiment tracking and MongoDB, orchestrated with Docker Compose and deployed to Kubernetes. Stack: FastAPI, YOLOv5, MLflow, Docker, Kubernetes.

Deep Active Learning on CIFAR-10 — github.com/Sofa3xpert/active-learning-cifar10

Active-learning and semi-supervised image classification on CIFAR-10 with a ResNet backbone, comparing label-efficient selection strategies (TypiClust on supervised embeddings). Stack: PyTorch, torchvision, ResNet.

Object Detection Robot — github.com/Sofa3xpert/ros-object-detection-robot

Real-time visual-recognition pipeline using YOLO for a simulated robotics environment, integrating perception with robot control. Stack: Python, ROS, OpenCV.

AI Mental Health Assistant — github.com/Sofa3xpert/ai-mental-health-assistant

LLM-based conversational assistant prototype supporting doctor-patient interactions, combining transformer models with domain-specific prompting. Stack: HuggingFace, BERT.

SKILLS

Machine Learning: PyTorch, TensorFlow, Scikit-learn

Python & Data: Python, NumPy, Pandas, Plotly, OpenCV

AI / LLM: OpenAI, LangChain, Streamlit, REST APIs

Automation & Testing: Selenium, Cypress

Databases: Cassandra, MongoDB

LANGUAGES

Russian — Native

English — Professional working proficiency (spoken)

Chinese — Basic

German — Basic