

Mariia M.

AI/ML Engineer /
Back-End Developer

Summary of Qualifications

Results-driven AI and Back-End Developer with 3 years of experience delivering advanced AI solutions, automation systems, and data-driven applications. Specialized in integrating LLMs, and implementing AI-based algorithms for natural language processing, computer vision, and predictive analytics. Proficient in Python, FastAPI, SQLAlchemy, Docker, and Redis, with deep expertise in ML frameworks including PyTorch, TensorFlow, and OpenCV. Experienced in developing real-time monitoring systems, multi-language video automation platforms, and enterprise-level analytics tools. Strong background in asynchronous programming, API integration, CI/CD (GitHub Actions), and cloud solutions (AWS). Passionate about creating innovative, efficient, and intelligent software solutions that solve complex business challenges.

Skills

Programming Languages/Technologies

- SaaS/RIA Research & Development
- Asynchronous Programming
- Technical Documentation/Architecture Reports
- XML/JSON/YAML
- Python

RDBMS

- MySQL
- PostgreSQL
- Alembic

NoSQL

- Redis

Virtualization Tools

- Docker / Docker Compose

Methodologies

- Agile, Scrum, Kanban
- Pair Programming

Operating Systems

- Microsoft Windows
- Debian/Ubuntu/ Arch/Linux

CI/CD

- GitHub CI/CD
- GitHub Actions

Versions Control

- Git
- GitHub
- GitLab

Development Tools

- Visual Studio
- PyCharm

Frameworks/Libraries

- FastAPI
- SQLAlchemy
- Numpy/Pandas
- Requests
- Aiohttp
- Matplotlib
- Selenium
- LangChain
- LangGraph
- LlamaIndex
- PyTorch
- OpenCV
- PyTesseract
- Pillow
- Scikit-learn
- Streamlit
- TensorFlow
- Whisper
- Faster Whisper
- ElevenLabs
- Telegram API
- Google AppScripts
- Starlette

Automation Tools

- N8N

Application/Web Servers

- Nginx

Cloud Providers

- AWS

Testing Tools

- Postman
- Pytest
- Unittest, Mock

Experience

Project Description:

AI-Based Buying Committee Detection System

The project aimed to identify the Buying Committee within a company's contact base using AI. The system provides a complete toolset to achieve this goal, including PDF parsing and AI-driven analysis to generate detailed company profiles. It integrates a scraping system that aggregates data from multiple sources via API requests. The core functionality involves finding the Buying Committee through a custom algorithm built on LLM prompt chains, followed by result validation. Additionally, the system offers analytics and visualizations for users in the form of interactive charts.

Domain:

AI & ML | Sales

Involvement Duration:

1 year

Project Role:

AI Developer

Responsibilities:

- Designing an AI algorithm based on LLM prompt chains;
- Parsing and validating LLM responses;
- Integrating multiple data scrapers using API requests;
- Building a unified scraping system with contact validation;
- Developing an algorithm for analyzing parsed PDF documents.

Project Team Size:

3-5 team members

Tools & Technologies:

FastAPI, SQLAlchemy, Alembic, Docker, LangChain, OpenAI, Google GenAI, Pydantic, LangSmith, RapidAPI, Apify, AWS, PyMuPDF, asyncio.

Project Description:

Computer Vision System for Hotel Monitoring

The main aim of the project was to develop an AI-powered hotel monitoring system based on surveillance cameras. The system detects people in a video stream, tracks their movements, identifies individuals, and performs re-identification to recognize the same person even when appearing in different camera views. It also collected and processed data to generate analytics about guest movement across different hotel zones. This solution helped automate monitoring, track visitor flows, and improve space management and hotel security.

Domain:

AI & ML | Hospitality | Security

Involvement Duration:

1 years

Project Role:

AI Engineer

Responsibilities:

- Training OSNet model for person re-identification;
- Collecting and cleaning datasets for training;
- Developing an algorithm based on YOLO, OSNet, and DeepSORT for people monitoring;
- Configuring Docker for real-time streaming;
- Implementing logging and analytics system.

Project Team Size:

3-4 team members

Tools & Technologies:

OpenCV, PyTorch, Torchreid, OSNet, YOLO, DeepSORT, Logger, Torchvision, FAISS.

Project Description:

AI Social media automatization

The main aim of the project is in automatization of clean video creation (full and shorts for social media) and translation using AI. The user provides a raw video and a text script containing time markers of the chapters, blooped cuts, camera changes, etc. This video is cleaned automatically. Video is translated into specified foreign languages using AI speech-to-text and text-to-speech technologies. As a result, clean videos in all the needed languages are rendered.

Domain:

Marketing

Involvement Duration:

1 year

Project Role:	Back-End/AI Developer
Responsibilities:	▪ Back-end development; ▪ Back-end logic for video upload; ▪ OpenAI integration; ▪ Prompt engineering; ▪ ElevenLabs integration; ▪ DALL-E / Stable Diffusion image generation; ▪ Testing; ▪ Error Handling.
Project Team Size:	4-6 team members
Tools & Technologies:	Python, FastAPI, SQLAlchemy, Pydantic, OpenAI, Anthropic API, ElevenLabs, DALL-E, Stable Diffusion, Whisper, Nginx, Alembic, Redis, Celery, Poetry.

Certificates	DATA SCIENCE FUNDAMENTALS DataRoot Labs	
	Practical Deep Learning with PyTorch DataRoot Labs	
	Introduction to Databases for Back-End Development Meta	
	SQL for Data Science University of California, Davis	

Education	Bachelor's degree in Computer Science National Technical University of Ukraine 'Kyiv Polytechnic Institute'
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Languages	English – Advanced Ukrainian – Native Russian – Native
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