# Faig Gafarov

## Baku, Azerbaijan | faiq.qafarov.04@gmail.com | +994555073338 | LinkedIn | GitHub

Computer Vision & AI Engineer with hands-on experience in developing real-time quality control systems and deploying deep learning models in industrial environments. Skilled in Python, OpenCV, and YOLO-based detection pipelines, with additional expertise in data science and PLC integration. Motivated to apply innovative technologies to solve complex real-world challenges.



#### **EDUCATION**

**Yildiz Technical University** 

**Istanbul, Turkey** 09/2020 – 09/2025

Bachelor's, Mechatronics Engineering

Relevant Coursework: Object-Oriented Programming, Introduction to Artificial Intelligence,

Microprocessors and Programming, Industrial Automation, Image Processing

Classification: Graduated with distinction (GPA: 3.1/4)

Istanbul, Turkey

Istanbul University

Associate's degree, Computer Programming

Relevant Coursework: Database Design, Machine Learning

#### WORK EXPERIENCE

AygazIstanbul, TurkeyAI Engineer Intern07/2025 - 10/2025

Built a real-time computer vision QC system with CNNs & YOLOv11 for torn/intact/faded sleeve detection.

- Developed a multi-camera Python/OpenCV pipeline with ROI optimization and real-time inference.
- Integrated with Omron PLCs (FINS/EtherNet/IP) to enable automated rejection and seamless production line control.
- Implemented valve angle detection with a smart vision camera, optimizing lighting and imaging for reliable inspection.

**C4IR Azerbaijan**AI Engineer Intern

Baku, Azerbaijan
04/2025 – 07/2025

• Developed automated time-series forecasting solutions and data visualization tools, using machine learning models.

• Implemented end-to-end pipelines for data processing, model evaluation, and PDF reporting with customized visual analytics.

**DroneX UAV**Software Team Member

1stanbul, Turkey
02/2022 - 08/2022

• GUI Backend Develop, Contributed to the design interface and development of unmanned aerial vehicles.

- Contributed to a real-time image processing system that classified targets by color (enemy vs. ally units) and triggered corresponding autonomous actions for mission scenarios.
- Achieved 3rd place in Teknofest 2022 UAV Competition and selected as a finalist in Teknofest Azerbaijan with the same team.

#### PROJECTS & OUTSIDE EXPERIENCE

## Real-Time Computer Vision System for LPG Cylinder Sleeve Inspection (Aygaz)

07/2025 - 09/2025

• Developed a real-time computer vision system for cylinder sleeve inspection using CNNs and YOLOv11, integrated with Omron PLCs to enable automated quality control on the production line.

### **Industrial Faulty Product Separation with AI-Based Image Processing Techniques**

10/2023 - 05/2024

- Developed an image processing system to automate the separation of fresh and rotten fruits on a conveyor belt using Python and OpenCV, applying pre-trained CNN models with color and texture analysis to ensure real-time, high-accuracy classification.
- Link To Project

Smart Home System 12/2022 – 01/2023

- Developed a Smart Home System using Flutter Dark Dream for the interface, integrated with PIC hardware, implemented Pultus protocol for communication using Assembly and C, and added Voice Recognition for enhanced user control.
- Link To Project

#### SKILLS AND INTERESTS

- Skills: Python, OpenCV, YOLO, CNNs, TensorFlow, PyTorch, Scikit-learn, NumPy, Pandas, Matplotlib, SQL, PLC
   Communication (Omron FINS/EtherNet/IP), Smart Vision Cameras (Hikrobot SC3000, Omron IV2-G30F), Microcontrollers
- Languages: English Upper Intermediate, Turkish Advanced, Russian Beginner, Azerbaijani Native
- Interests: Fitness | Cooking | Cycling