

READ LEVA ALALLOŞ

AI & Robotics Engineer | Computer Vision | Embedded AI | Autonomous Systems

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Summary

AI & Robotics Engineer and Information Technologies Master's student with proven experience in computer vision, embedded AI, and autonomous systems. Demonstrated success in deploying high-accuracy deep learning models (>97%) on edge devices (**Raspberry Pi**) and engineering **TÜBİTAK-funded** autonomous drone projects. Adept at bridging the gap between advanced software architectures (**ROS2, TensorFlow, PyTorch**) and industrial automation systems.

Skills

Programming: Python, C++, C, C#, MATLAB

AI & Computer Vision: OpenCV, TensorFlow, PyTorch, Machine Learning, Deep Learning

Robotics & Automation: ROS2, Pixhawk (PX4/ArduPilot), PLC Programming (Siemens TIA Portal), Control Systems

Developer Tools & Hardware: Git, Linux (Ubuntu), Raspberry Pi, STM32, Industrial Control Panels

Languages: Arabic (Native), Turkish (Fluent), English (Advanced)

Experience

AI & Robotics Intern

Selçuk University

Feb 2026 – May 2026

Tools Used: Python, OpenCV

- Led the development of an end-to-end Computer Vision pipeline on **Raspberry Pi**, successfully classifying waste across 5 distinct categories.
- Optimized and deployed edge AI models, achieving a **97.69% real-time classification accuracy**.
- Integrated image recognition software with physical conveyor automation systems.

Computer Vision & AI Intern

Selçuk University

Jun 2025 – Aug 2025

Tools Used: TensorFlow, PyTorch

- Designed and trained neural network architectures (**CNNs**) for medical image analysis, reaching a **98.43% accuracy rate** in tumor classification.
- Curated and preprocessed a dataset of **2,867 high-resolution MRI images**, applying robust data augmentation to eliminate model overfitting.
- Enhanced clinical image analysis performance by benchmarking model metrics (precision, recall) against standard medical datasets.

Automation Department Intern

Mizan Mekatronik

Jun 2024 – Aug 2024

Tools Used: Siemens TIA Portal

- Programmed PLC systems and designed HMI screens using **Siemens TIA Portal**.
- Assembled and wired industrial control panels and sensor distribution networks.
- Diagnosed and resolved hardware/software faults during system commissioning.

Projects

AI-Powered Automated Waste Sorting System

Feb 2026 – May 2026

- Engineered an automated recycling system by training custom **CNN models** on a dataset of **12,000+ images**.
- Optimized memory footprint for **Raspberry Pi** deployment, achieving **97.69% accuracy** across 5 waste streams.
- Developed a **ROS2 communication bridge** to stream real-time inferences directly to conveyor control units.

Brain Tumor MRI Analysis System

Jun 2025 – Aug 2025

- Developed an end-to-end **deep learning** platform for automated tumor classification and lesion segmentation.
- Attained a peak accuracy of **98.43% on 2,867 clinical MRI scans** using **PyTorch** and spatial attention.
- Implemented **OpenCV** image processing filters to enhance soft-tissue contrast before model training.

Foldable-Wing Autonomous Drone

Aug 2025 – Jan 2026

- Designed a foldable-wing **autonomous UAV** equipped with a multi-sensor payload for real-time air quality tracking.
- Applied **machine learning algorithms** to parse telemetry data and predict local environmental pollution patterns.
- **Awarded research funding** as a principal developer under the prestigious **TÜBİTAK 2209-A Undergraduate Research Project** program.

Education

Master's Student in Information Technologies

Selçuk University

2026 – Present

Bachelor of Mechatronics Engineering

Selçuk University

2022 – 2026

Relevant Coursework: Robotics, Artificial Intelligence, Computer Vision, Embedded Systems, Control Systems, Industrial Automation