

KEMAL KILIÇASLAN

AI DEVELOPER

CONTACT

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EDUCATION

KASTAMONU UNIVERSITY FACULTY OF SCIENCE AND LITERATURE MATHEMATICS - 2022 Graduate - Bachelor's Degree

EXPERIENCE

- **Bilgi Teknolojileri ve İletişim Kurumu - AI Instructor Seasonal** (July 2024 - Present): Delivered face-to-face AI training (Python, ML, deep learning, computer vision) to 20+ participants using a hands-on curriculum built on TensorFlow, OpenCV and GPU-accelerated model training demos, guiding students through end-to-end model development from data preparation to deployment with an 85% project completion rate.
- **CALORIN - Computer Vision Developer Remote** (Aug 2024 - Sep 2024): Developed a real-time food volume estimation system using YOLOv8 and OpenCV for pixel-level segmentation of fruits and vegetables, applying geometric calculations to convert segmented areas into calorie estimates with an optimised low-latency inference pipeline validated across diverse lighting and scale conditions.
- **ULTRALYTICS - AI Content Creator - Brand Partnership** (March 2026 - April 2026): Produced a sponsored LinkedIn post and a YouTube tutorial for the Ultralytics Platform launch, demonstrating the full computer vision pipeline (annotation, training, export, deployment) using YOLO26 on two original real-world datasets; content delivered in compliance with FTC guidelines and Ultralytics Brand Guidelines.

PROJECTS

- **Garbage Classification with Convolutional Neural Network (CNN)**: This project implements Garbage Classification using Convolutional Neural Networks with TensorFlow/Keras. Classifies waste into 6 categories (cardboard, glass, metal, paper, plastic, trash) using TrashNet dataset. Achieves 62.2% accuracy for automated recycling applications.
- **Facial Expression Recognition System**: This project implements "Facial Expression Recognition" using VGG19 and PyTorch. Classifies 7 emotions (angry, disgust, fear, happy, neutral, sad, surprise) from FER-2013 dataset. Achieves 66.33% accuracy with transfer learning, data augmentation, and deep learning techniques.
- **Face Detection and Person Recognition System**: This project implements "Face Detection and Person Recognition" using OpenCV and YOLO. Detects faces with Haar Cascade, recognizes persons with YOLOv8(GPU), processes photos and videos in real-time. Built with Python and Ultralytics for computer vision applications.
- **Pose Detection with YOLOv8 using Wolfram Mathematica**: This project implements "Pose Detection using YOLOv8 in Wolfram Mathematica". Detects 17 human keypoints with skeleton visualization, heatmap generation, and comprehensive analysis. Leverages pre-trained MS-COCO models for accurate body pose recognition and movement tracking.
- **Vehicle Speed Estimation System**: This project implements "Vehicle Speed Estimation" using YOLOv8 and perspective transformation. Tracks multiple vehicles with ByteTrack, calculates speeds via geometric calibration in km/h. Built with Python, OpenCV, Ultralytics, and Supervision for traffic monitoring.
- **Safety Lane Violation Detection System**: This project implements real-time "Safety Lane Violation Detection" using YOLOv12 and ByteTrack. Monitors emergency lanes with ROI-based tracking, line-crossing detection, and live statistics. Built with Python, OpenCV, and Ultralytics for traffic enforcement applications.
- **Road Lane Lines Detection System**: This project implements "Road Lane Lines Detection" using OpenCV with Canny edge detection, ROI masking, and Hough Transform. Processes video streams for accurate lane boundary identification. Built with Python and NumPy for ADAS and autonomous driving applications.
- **Traffic Signs Recognition, Vehicle Plate and Person Blurring System**: This project implements real-time "Traffic Sign Recognition" (24 classes) with automatic privacy protection using YOLOv11. Detects signs, blurs vehicle plates and persons with Gaussian filtering. Built with Python, OpenCV, and Ultralytics for GDPR-compliant surveillance.
- **Vehicle Distance Measurement System**: This project implements real-time "Vehicle Distance Measurement" using YOLOv12 and perspective geometry. Calculates real-time distances in three ROI lanes with adaptive warnings and automatic plate blurring. Built with Python, OpenCV, and Ultralytics for dashcam safety applications.
- **Road Surface Obstacle and Traffic Warning Object Segmentation System**: This project implements real-time segmentation of road surface obstacles (pothole, crack, patch) and traffic warning objects (traffic-cone, road-barrier) using a custom-trained YOLO26x-seg model on the Ultralytics Platform. Built with Python, OpenCV, and Ultralytics for ADAS and autonomous driving applications.
- **Industrial Safety Gear Detection System**: This project implements real-time "Industrial Safety Gear Detection" using a custom-trained YOLO model on the Ultralytics Platform. Detects persons and 4 PPE classes (helmet, safety-vest, gloves, face-mask) with IoU-based equipment-to-person assignment and centroid tracking, classifying compliance status with color-coded overlays. Built with Python, OpenCV, NumPy, and Ultralytics for occupational health and safety monitoring.

PERSONAL INITIATIVES

- Kastamonu Üniversitesi Matematik & Bilim Topluluğu (**Founding President**) (Dec 2021 - June 2022)
- Türkiye Matematik Kulübü (**Member**) (Dec 2020 - Present)
- Niğde Ömer Halisdemir Üniversitesi - TeknoKonferans NÖHÜ'25 (**Speaker**) (May 2025)

CERTIFICATES

- Machine Learning Specialization **Stanford University & DeepLearningAI**
- Deep Learning Specialization **DeepLearningAI**
- Mastering Programming with MATLAB **Vanderbilt University**
- Version Control **Meta**
- Convolutional Neural Networks in TensorFlow **DeepLearningAI**
- System Engineering **MathWorks**
- Mathematics for Machine Learning Specialization **DeepLearningAI**
- Self-Driving Cars Specialization **University of Toronto**