MUHAMMET ÖZDEMİR

AI RESEARCHER & ENGINEER

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ABOUT ME

Muhammet Özdemir, B.Sc. Candidate, Computer Engineering, Erciyes University (2022 – 2025)
Founder & President, Erciyes University Artificial Intelligence Club
Lead developer on TÜBİTAK- and TÜSEB-funded AI & computer-vision research projects
Developer of novel scientific methods in AutoML and AI optimisation, contributing to the academic literature

TECHNICAL SKILLS

AI Domains: AI Research, AI Optimization, Computer Vision, AutoML, Machine Learning, Deep Learning
Data & Operations: Data Analysis, Data Processing, MLOps
Languages & Frameworks: Python, PyTorch, SQL, OpenCV

PROFESSIONAL EXPERIENCE

ERU AI Club, Founder, Club President, AI Project Team Leader, 03/2024 - Present
Led a team of 20 computer science students in 8 theoretical AI projects funded by TÜBİTAK (The Scientific and Technological Research Council of Türkiye) and a TÜSEB (Health Institutes of Türkiye)-supported health AI project, which became a national finalist. Served as team leader, project coordinator, and researcher, contributing actively to scientific publications derived from these initiatives

Erciyes University, AI Intern, Information Technologies Department, 09/2024 - 01/2025
Developed a real-time CNN-based AI system for campus entry/exit control, people counting, and ID-based identification using campus cameras. Executed end-to-end implementation: system design, AI model training, multi-camera image processing, hardware specification, and live deployment, achieving full operational readiness

EDUCATION

Erciyes University, Computer Engineering, 2022-2025
Communities: ERU AI Club

PROJECTS

Development of AutoML Systems with Optimization Algorithms
Developing optimisation-driven methods that automate data preprocessing, NAS, activation- and loss-function design, weight initialisation, and hyper-parameter tuning, advancing AutoML theory and yielding SCI/E-indexed papers.

Hybrid Mammography Analysis: Early Breast-Cancer Detection with Hybrid CNN Architectures
A project jointly conducted with the Turkish Ministry of Health and funded by TÜSEB. A hybrid CNN system was developed that processes 4,000 mammograms, detects lesions, and achieves over 90% BI-RADS success; the project was a national finalist and was presented in Antalya.

Machine Learning Based Customer Matching and Product Recommendation System for Cafes and Restaurants
Developed a hybrid ML engine that clusters business and customer data, delivering > 90 % match accuracy and tailored product recommendations. Combined user-/item-based collaborative filtering with clustering models and integrated the solution into existing POS and mobile apps.

PUBLICATIONS

Automatic Design of Deep Neural Network Activation Functions Using Genetic Programming
Research Article, SCI/E