Kenan KOCADURDU

PhD Candidate | Master's | Bachelor's in Computer Engineering

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SUMMARY

Computer Engineer with expertise in AI-driven solutions, medical imaging, and cloud-based automation. Skilled in developing scalable platforms and innovative technologies to optimize healthcare operations and drive impactful results.

EXPERIENCES

Bakircay University Hospital | Computer Engineer **2019 - 2025**

Echomotion: is a deep learning project designed to analyze heart function automatically from echocardiography videos.

PLAff: focused on explainable protein-ligand interaction analysis. It integrates a Knowledge Graph (KG) constructed with Large Language Models (LLMs) for insights into binding affinities.

FlowSphere: A centralized platform managing MLOps applications for streamlined ML workflows, including model training, deployment, monitoring, and version control across projects.

AutoMicro: Microscopic image analysis application for automated diagnosis.

Operational and Financial Optimization:

- Developed a Java-based Hospital Cost Analysis app
- Built a QR-based Security Patrol Tracking System using FastAPI, NodeJS.

Aydin Health Directorate | IT Specialist **2017 - 2019**

- Managed IT infrastructure across 10+ hospitals, ensuring high availability and operational efficiency.
- Designed and developed a custom HRIS, human resource information system.
- Conducted IT staff trainings, enhancing system usability and troubleshooting capabilities.

Maroli Food Industry and Foreign Trade. Inc. | Software Engineer **2017 - 2018**

- Developed a custom ERP system for an olive production facility, optimizing procurement, inventory, and production workflows.
- Achieved 10% efficiency gains in purchasing and 5% in production processes through automation.

Aydin Cancer Early Diagnosis Center | Computer Engineer **2014 - 2017**

- Managed data storage infrastructure, ensuring data integrity and system reliability.
- Developed a Java-based patient tracking system, optimizing transactions and saving significant time and resources.

SKILLS

Machine Learning & AI:

- Deep Learning, Computer Vision, Medical Image Analysis, Federated Learning
- Model Training & Optimization

Programming & Development:

- Languages: Python, Java, MATLAB
- Frameworks & Tools: PyTorch, Scikit-Learn, MLFlow, FastAPI, OpenCV
- Containerization & CI/CD: Docker, Kubernetes, Azure DevOps, Git/GitHub

Data Management & Processing:

- Data Pipelines: Real-time data preprocessing, ingestion, and transformation
- Knowledge Representation: Neo4j, Graph Databases

Languages:

English (B2), Turkish (Native), German (A1 – actively improving)

EDUCATION

PhD in Computer Engineering
Bakircay University, Türkiye **2024 - ……**
Focus: Medical Image Analysis, Drug discovery, and Large Language Models (LLMs).

MSc in Computer Engineering
Bakircay University, Türkiye **2021 - 2023**
Thesis: Comparison of Federated Learning Frameworks for Medical Image Domain.

BSc in Computer Engineering
Suleyman Demirel University, Türkiye **2011 - 2015**
Capstone Project: Development of an IoT-based patient monitoring system.

PUBLICATIONS

The Use of Deep Learning in the Automatic Interpretation of Blood Culture Gram Stains
Scientific Research Project (In progress), Expected 2025

Comparison of Federated Learning Frameworks for Medical Image Domain
Master's Thesis, Bakircay University, 2023

Deep Learning Model-Assisted Detection of Kidney Stones on Computed Tomography
Published in Int Braz J Urol, 2022

CERTIFICATIONS

Microsoft Azure AI Fundamentals – Coursera, Microsoft
Deep Learning Specialization – deeplearning.ai
AI for Medical Diagnosis – deeplearning.ai
Getting Started with AI on Jetson Nano – NVIDIA DLI

VOLUNTEERING

Member | Medical Informatics Association, Türkiye
Founding Board Member | Aegean Health Managers Association, Türkiye