

# Ercan KURTOĞLU

AI/ML Engineer



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## PERSONAL INFORMATION

e-mail : [ercannkurtoglu@hotmail.com](mailto:ercannkurtoglu@hotmail.com)

phone : +905447107149

linkedin : [linkedin.com/ercan-kurtoglu](https://www.linkedin.com/ercan-kurtoglu)

github : [github.com/ErcanKurtoglu](https://github.com/ErcanKurtoglu)

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## ABOUT ME

I am an engineer with 3 years of experience in automation software and over 1 year in project management. During university, I spent 4 months in Montana, USA, and worked on international projects in Iraq, gaining valuable cross-cultural collaboration skills.

Leveraging my professional experience, I transitioned into AI and have spent the past year developing skills in machine learning, computer vision, NLP, LLMs, Transfer Learning, Python, Kubernetes, Docker, cloud technologies, CI/CD and deployment processes. I am seeking a role in AI/ML engineering to apply my expertise and contribute to impactful projects.

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## CERTIFICATES

### ***Langchain and Ollama Integration for AI Applications***

***03/2025 - Udemy***

- Completed a hands-on course on integrating Langchain and Ollama to build, automate, and deploy AI applications. Learned to set up the tools, create prompt templates, automate workflows, and manage data retrieval. Gained practical experience in building chatbots, working with document loaders, and deploying applications on AWS.

### ***Docker and Kubernetes***

***12/2024 - Udemy/Stephen Grider***

- Completed a comprehensive course on Docker and Kubernetes, covering everything from foundational concepts to advanced implementation. Gained expertise in building custom Docker images, mastering the Docker CLI for debugging, and creating CI/CD pipelines using GitHub, Travis CI, AWS and GCP.

### ***TensorFlow for Deep Learning Bootcamp***

***06/2024 - Udemy/ZTM***

- Learned TensorFlow 2 to build machine learning models for computer vision, NLP, and time series forecasting. Developed deep learning applications like CNNs for image and text recognition and gained skills in transfer learning and integrating machine learning into real-world tools.

### ***Complete A.I. & Machine Learning, Data Science Bootcamp***

***06/2024 - Udemy/ZTM***

- This comprehensive program covers Data Science and Machine Learning essentials, including data exploration, visualization, neural networks, and transfer learning. Participants will master tools like Python, TensorFlow, Numpy, and Scikit-Learn, applying them to projects in image recognition, classification, and regression.
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## **PERSONAL PROJECTS**

### ***PDF Resume Parser with LLM & FastAPI Deployment on AWS***

- Developed a personal project to extract and convert sections and corresponding information from PDF resumes into structured JSON format using Large Language Models (LLM). Utilized FastAPI to build a scalable API for parsing resumes, identifying key sections like experience, education, and skills. Implemented AWS deployment for seamless access and efficient processing. The project focused on automating resume parsing, enhancing data extraction accuracy, and enabling fast, real-time integration with cloud environments.

### ***Kubernetes and Docker: Multi-Docker with Kubernetes on GCP***

<https://github.com/ErcanKurtoglu/multi-k8s>

- Developed a multi-container application with Node, React, Redis, and Postgres using Docker. Built a CI/CD workflow with GitHub, Travis CI, AWS, and GCP, and deployed it on a Kubernetes cluster following best practices.

### ***TensorFlow Project: Food Vision Multiclass Classification***

[https://github.com/ErcanKurtoglu/TensorFlow/blob/main/Food\\_Vision\\_Project.ipynb](https://github.com/ErcanKurtoglu/TensorFlow/blob/main/Food_Vision_Project.ipynb)

- Developed a food classification model using the Food-101 dataset with transfer learning techniques. Leveraged pre-trained models from TF Hub (based on ImageNet) for feature extraction and aimed to surpass the DeepFood benchmark (77.4% top-1 accuracy).

### ***Scikit-Learn project: Heart-Disease Classification***

[https://github.com/ErcanKurtoglu/Scikit-Learn/blob/main/Heart-disease\(Classification\)/end-to-end-heart-disease-classification.ipynb](https://github.com/ErcanKurtoglu/Scikit-Learn/blob/main/Heart-disease(Classification)/end-to-end-heart-disease-classification.ipynb)

- Built a machine learning model using Python-based libraries, incorporating EDA, model training, evaluation, comparison, and hyperparameter tuning. Implemented cross-validation and analyzed feature importance to optimize performance.
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## **WORK EXPERIENCE**

### **Project Management**

Turkey/Promekanik

06/2022-08/2023

- Managed end-to-end lifecycle of automation projects in industrial environments.
- Conducted compliance checks for software systems and ensured proper documentation.
- Coordinated testing and commissioning activities with engineering and operations teams.
- Oversaw the transfer and visualization of operational data for reporting and decision-making.
- Supported technical communication and stakeholder engagement throughout the project phases.

#### **Highlighted Project:** Dust Collection Automation – Karabük Iron and Steel Company

- Oversaw the project management of automation systems for the dust collection facility at Karabük Iron and Steel Company. Responsibilities included software compliance checks, reporting, and management of testing processes.

### **Project Management Assistant**

Turkey/Demora

12/2021 - 04/2022

- Supported the execution of industrial automation software projects in coordination with project engineers.
- Assisted in maintaining accurate and up-to-date project documentation and technical reports.
- Collaborated with cross-functional teams to track progress and address operational issues.
- Monitored project risks and contributed to mitigation planning.
- Provided regular updates and insights to internal and external stakeholders.

#### **Highlighted Project:** Integrated Facility Installation – Van Steel Company

- Led the electrical and automation project management for the establishment of a fully integrated steel production facility, including the rolling mill, steelmaking unit, dust collection system, and water treatment plant. Responsibilities included developing detailed working schematics, overseeing project progress across multidisciplinary teams,

*coordinating with contractors and stakeholders, and preparing comprehensive technical and managerial reports for executive leadership and partners.*

## **Automation Engineer**

Turkey/ASM

08/2021 - 12/2021

- Designed and programmed automation systems using PLC, SCADA, and HMI technologies tailored to wastewater treatment applications.
- Developed and documented detailed operational processes and control logic.
- Created and executed test scenarios aligned with system workflows and safety requirements.
- Prepared technical documentation, user manuals, and commissioning reports.
- Configured databases to support data logging, system diagnostics, and reporting.
- Generated automated system reports for monitoring and analysis purposes.

### **Highlighted Project:** Wastewater Treatment Plant – Plastic Recycling Facility

- *Led the automation software development for the wastewater treatment system of a plastic recycling company. Responsibilities included configuring PLC, SCADA, and HMI programs, implementing a structured reporting system, and developing a customized database configuration to enable process monitoring and performance tracking.*

## **Automation Engineer**

Turkey/Vngtech

02/2020 - 08/2021

- Designed, developed, and deployed industrial automation systems tailored to client requirements.
- Created and implemented automation frameworks, methodologies, and custom tools to standardize operations.
- Programmed and tested PLC, HMI, and SCADA components to optimize machine control and data acquisition.
- Built scripts for transferring process data to relational databases for analysis and monitoring.
- Developed reporting and analysis systems for production efficiency tracking.
- Delivered technical training to on-site staff to ensure sustainable operation and maintenance of systems.
- Ensured automation software compliance for secure and industrial-grade environments.

### **Highlighted Project:** Rolling Mill Automation – ÇagÇelik, Karabük

- *Developed and implemented end-to-end automation systems for the rolling mill factory, including software development and the integration of electrical/electronic components. Designed a dedicated production analysis system with a custom database to store and visualize production parameters.*

### **Highlighted Project:** Rolling Mill Automation – MedSteel, Iraq

- *Completed automation software configuration and deployment for steel production lines. Participated in defining software logic, on-site testing, and client-side communication during commissioning.*

## **Project Engineer**

Turkey/MKD

12/2018 - 06/2019

- Designed and developed automation software for hydraulic and press systems tailored to industrial manufacturing needs.
- Created user documentation and manuals to support operational use and maintenance.
- Developed electrical schematics to support the implementation and troubleshooting of automation systems.
- Programmed and tested PLC, SCADA, and motion control (drive) systems.
- Delivered technical training to operators and maintenance personnel for safe and effective use.

### **Highlighted Project:** Busbar Production Line – EAE

- *Led the automation and electrical design for the production line of modular busbar distribution systems used in factory power distribution. Responsibilities included designing the electrical system architecture, developing PLC, SCADA, and drive control programs, conducting functional testing, and providing operational training to end users.*
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EDUCATION

Bachelor of Mechatronics Engineering

Karabuk University  
2014 - 2018

Associate Degree in Mechatronics

Kocaeli University Vocational School of Higher Education  
2011 - 2013

STFA Vocational and Technical Anatolian High School

Mechatronics  
2007-2011

LANGUAGES

English

Professional Working Proficiency

Turkish

Native or Bilingual Proficiency

SKILLS

Python	Numpy	Pandas	Matplotlib	Scikit-Learn	XGBoost
LLM	NLP	Computer Vision	Machine Learning	SQL	
Linux	MLOps	AIOps	Langchain	Ollama	
Docker	Kubernetes	CI/CD	GithubActions	AWS	GCP
Engineering	Problem Solving	Teamwork	Flexibility	Time Management	

INTEREST

Gym	Writing	Videos	Music	Camping	Udemy
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