

Ahmad Nayfeh

Electrical Engineer | AI & Signal Processing Focus

Dhahran, Saudi Arabia | ahmadnayfeh2000@gmail.com | +966500380453

[LinkedIn](#) | [Personal Website](#) | [GitHub](#)

Professional Summary

Electrical Engineer with a focused specialization in artificial intelligence, signal processing, and computer vision. I integrate engineering logic with deep learning and image analysis to develop optimized, practical solutions for complex challenges in energy, automation, and intelligent systems

Education

Master of Science, Electrical Engineering <i>King Fahd University of Petroleum and Minerals</i>	Aug 2024 – Present <i>Dhahran, KSA</i>
Bachelor of Science, Electrical Engineering (Second Honor) <i>King Fahd University of Petroleum and Minerals</i>	Sep 2018 – Jan 2024 <i>Dhahran, KSA</i>

Experience

Teaching Assistant: Fundamentals of Electric Circuits <i>KFUPM, Department of Electrical Engineering</i>	Sep 2024 – May 2025 <i>Dhahran, KSA</i>
<ul style="list-style-type: none">Developed teaching materials and problem sets, improving student performanceHeld weekly office hours supporting 50+ students in understanding key conceptsAssisted faculty with grading and provided constructive student feedback	
AI Research Intern – Waste Management Systems <i>SDAIA-KFUPM Joint Research Center for Artificial Intelligence</i>	Jun 2023 – Aug 2023 <i>Dhahran, KSA</i>
<ul style="list-style-type: none">Built YOLOv8 + classifier pipeline on 10k+ annotated images, improving F1-score by 2%Applied data augmentation and class balancing to improve model generalizationEvaluated ResNet50, EfficientNet, and others with systematic hyperparameter tuning	

Key Projects

Real-Time Road Crack Detection & Classification (B.Sc. Senior Project) <ul style="list-style-type: none">Led 4-member team; integrated RGB-D camera with YOLOv8 model (74% mAP)Enhanced depth accuracy using signal denoising and image preprocessing techniquesRebalanced dataset and performed QA on 12,000+ samples from RDD2022 benchmark	Aug 2023 – Dec 2023
Gamified AI Recycling Bin – ACT28 Hackathon (Samsung & UNDP) <ul style="list-style-type: none">Developed AI model for smart bin in a 3-member team using deep learningCurated and augmented a diverse waste image dataset; achieved 95% accuracyRanked among top teams 3 across GCC & Turkey; invited to Samsung Dubai for showcase	May 2024 – Jun 2024
Wind Power Forecasting (LSTM & Random Forest) <ul style="list-style-type: none">Built hybrid LSTM-RF model for time-series wind power forecastingPreprocessed meteorological data (cleaning, resampling, scaling, imputation)	Jan 2023 – May 2023

Certificates

Google Project Management Professional Certificate (<i>Coursera</i>)	July 2024
Renewable Energy Technology Fundamentals (<i>Coursera</i>)	Jun 2024
Google Data Analytics Professional Certificate (<i>Coursera</i>)	Feb 2024