ALIREZA HASHEMI

Machine Learning &Computer Vision Engineer

CONTACT

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SKILLS

- numpy/Pandas
- Sickit-learn
- matplotlib/Seaborn
- Pytorch/torchvision
- Opencv/Cvzone
- TensorFlow / Keras
- MLflow
- Ultralytics YOLO
- Mediapipe
- Albumentations
- FastAPI
- Git / Docker

EDUCATION

MULLA SADRA TECHNICAL VOCATIONAL UNIVERSITY

- Bachelor of Software Engineering
  2019 - 2023

CERTIFICATES

- Smartech National AI Bootcamp (120-hour course)
- Introduction to Deep Learning with PyTorch(DataCamp)
- PyTorch: From Zero to Deep Learning Hero(Udemy)
- Generative AI Concepts(DataCamp)
- Understanding Data Engineering(DataCamp)

LANGUAGES

- English: work proficiency

PROFILE SUMMARY

I am an AI Engineer with 3+ years' experience in computer vision, machine learning, and deep learning. I build scalable, high-performance AI solutions for medical imaging, real-time object detection, and industrial automation by leveraging transfer learning and fine-tuning of pre-trained models, backed by a strong foundation in classical ML ,Image processing and NLP.

WORK EXPERIENCE

Vida medical   2023- 2024
Computer Vision Engineer

- Specialized in medical imaging, developing AI models for breast cancer and brain tumor detection & segmentation, enhancing diagnostic accuracy.

smartech   2021 - 2022
ML & Computer Vision Engineer (Internship)

- Worked on real-time vision detection and automation, applying machine learning to optimize object recognition and tracking systems.

PROJECTS

Human Pose Estimation (HPE)
- Developed a real-time system to detect and analyze human fitness exercises, providing self-coaching feedback for users.

Real-Time Emotion Detection
- Implemented a deep learning model for real-time facial emotion recognition, enhancing interactive AI applications.

Medical Cost Prediction (Tabular Data)
- Built an ML model using Random Forest & regression techniques to predict individual medical costs based on demographic data.

Laptop Price Prediction
- Developed a price estimation model using Random Forest Regression, predicting laptop prices with high accuracy.

Image Generation using GANs
- Trained Generative Adversarial Networks (GANs) to create realistic images, exploring AI-based creative content generation.

Instance Segmentation in Real Time
- Built an object segmentation model for real-time applications using Mask R-CNN, improving scene understanding.

Real-Time Object Detection and Counting
- Developed a YOLO-based system for real-time object detection & counting, optimizing automation and surveillance tasks.

Brain Tumor Multi-Class Classification
- Designed a custom CNN for MRI image classification, leveraging ResNet, DenseNet, and VGG to achieve high accuracy.

Diabetic Retinopathy Multi-Class Classification
- Applied transfer learning to classify retinal images, improving early detection of diabetic retinopathy using deep learning.