Welcome to ineuron.ai

Industry Safety Detection using YOLO v7

Description:

The purpose of this project is to create a detection system using Computer Vision and Machine Learning to monitor, track and enforce employees/workers to wear the necessary protection gear. ISD is designed and modeled to take a real-time image of the personnel as the input and determine if the five segments - helmet, gloves, jacket, goggles, and footwear are worn before entering the workplace, and record the procedures as well. If ISD does not find any of the safety gears, the worker will not be allowed to proceed and the prohibition alarm in the system will alert the authorities

Start Date: 3rd Jan'23

Doubt Clear Time:

Course Time: Flexible

Features:

Do Everything In Industry Grade Lab

Learn As Per Your Timeline

Hands-On Industry Real-Time Projects.

Self-Paced Learning

Dashboard Access

Course Materials

Assignments

What we learn:

Real Time Projects

Industry Safety Detection using YOLO v7

Object detection with YOLO v7

Data Annotation

How to work with Docker

Modular coding approach for training and prediction pipeline

Building Flask app

Learn about AWS basics

CICD tools like Github actions

Production-grade deployment

Requirements:

System with minimum i3 processor or better

At least 4 GB of RAM

Working internet connection

Dedication to learn

Instructor:

Name:

Boktiar Ahmed Bappy

Description:

This is Bappy. I aim for simplicity in Data Science. Real Creativity won't make things more complex. Instead, I will simplify them, Interested in a Data Science Career and so develop myself accordingly. Data Scientist and lecturer with working experience in Machine Learning, Deep Learning, Microcontrollers and Electronics systems. Hands-on experience in classification, regression, clustering, computer vision, natural language processing and transfer learning models to solve challenging business problems. I have a huge interest in Robotics. I have innovated a lot of innovations, ideas, projects & robots and got a lot of achievements.

>Welcome to the Course:

>>Course Overview

>>Dashboard Introduction

>Project :- Industry Safety Detection using YOLO v7:

>>Introduction of Instructor

>>Project Overview

>>End Notes

>>Problem Description

>>Understand the application scope

>>Tour to existing solution

>>End Notes

>>Solution Description

>>Notebook Walkthrough

>>Tour to Architecture diagram

>>cost involved

>>End Notes

>>Structure overview

>>Data Ingestion

>>Data Validation

>>Data Transformation

>>Model Training and Tunning

>>Model Evaluation

>>Model Pusher

>>Training Pipeline

>>Prediction pipeline

>>Frontend app design

>>Tour to the cloud and Service Overview (AWS)

>>IAM setup

>>ECR setup

>>EC2 setup

>>Self hosted runner

>>Docker

>>Conclude the project

>>Assignments & External Resources