Industry Safety Detection using YOLO v7

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

Duration : 1 month Language : english Price : 15000

What you will 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

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

Requirements

- System with minimum i3 processor or better
- At least 4 GB of RAM
- Working internet connection
- Dedication to learn

Course Curriculum

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