GRAYMATICS – Video Analytics for HELMET detection

Detect vehicle drivers driving with or without a HELMET

Project Description & Benefits

Our Capstone project is to build an AI solution which can annotate images of riders without a HELMET in a video stream from traffic cameras on the roads.

This solution, together with other algorithms addresses the need to ensure safety of two-wheeler riders on the roads.

You only look once (YOLO), real-time object detection system.

Solution

❑ YOLOv3: Real-Time Object Detection used given its strengths of speed and accuracy.
❑ Model trained for 2 classes – Helmet & No Helmet
❑ 53 convolutional layers & Darknet-53.
❑ Bulk Image Downloader tool for data & LabelImg for annotations.
❑ Train model in a Docker container
❑ Finally the results – run the detection on a video stream. Sample output shown beside.

Driver without a HELMET is detected amongst others

Industry Partner

GRAYMATICS

Graymatics is a cognitive media processing company based in Santa Clara, California, United States and in Singapore. The company is most well known for its digital video analysis and image-recognition technology, a platform capable of identifying the brands of products within images or video content.

Team Members
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