SYNOPSIS

DISTRIBUTED ANALYTICS IN FOG COMPUTING PLATFORMS USING TENSORFLOW AND KUBERNETES

KEY WORDS: Edge Analytics , Docker , Kubernetes , Tensorflow , YOLO , Containerisation , Orchestration, OpenFaaS.

In this project an edge analytics platform which is capable of handling the streaming data for analytics is setup to analyse the facial data. The platform is created using Docker and Kubernetes along with Tensorflow. Docker is used as a containerisation tool and the Docker hub is used as a remote repository for pulling and pushing the code to build the Docker images.

These docker images are build for Tensorflow application which has the computational libraries for python. The Tensorflow application is hosted on the Kubernetes cluster which captures the data from the worker node and does classification and localisation of the data captured.

My contribution for this project includes collecting all the necessary codes for the application that has to be deployed on to the cluster. I have selected YOLO(You Only Look Once) computer vision based application to deploy on the cluster. The application does both localisation and classification on the data(image) that is fed to the cluster.

By the completion of this project, I'm well versed with the computer vision(OpenCV) and it's applications to the real world problems.

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