

To,

IITD-AIA Foundation of Smart Manufacturing

Subject: **Weekly Progress Report for Week 4**

Dear Sir,

Based on my understanding and the topics covered, I have prepared the following progress report that addresses the relevant objectives of the project.

WEEK- 04

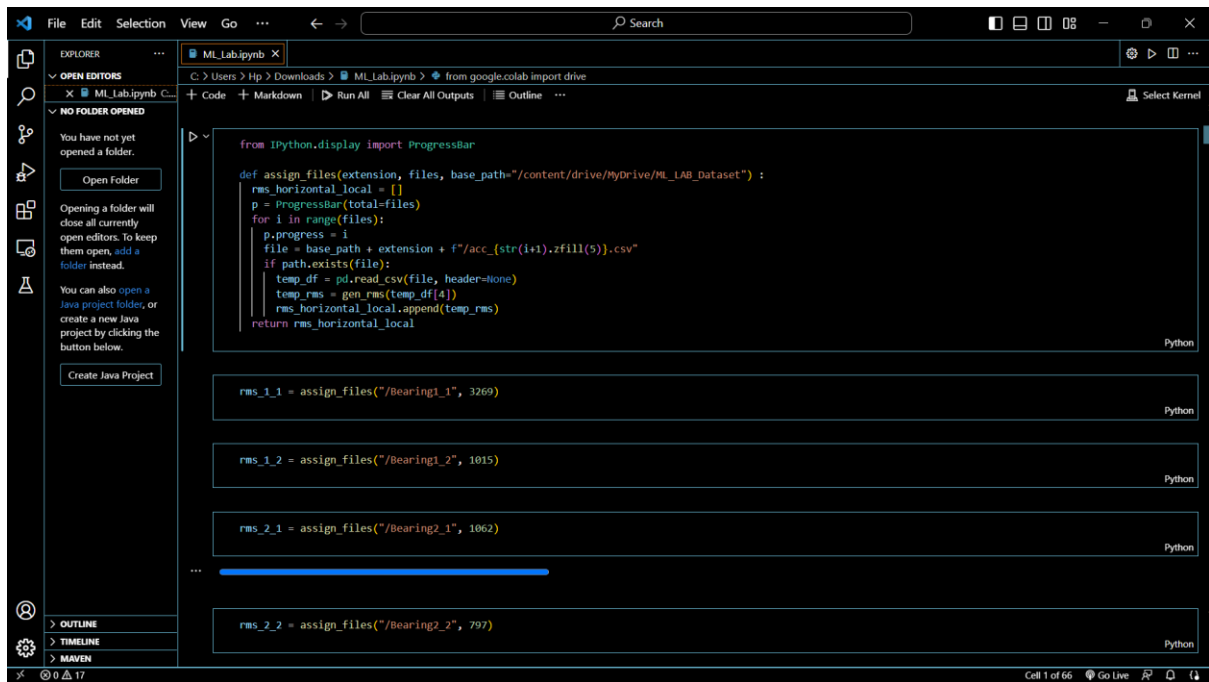
Date: 26 June 2023

Learnings

Learned about Neural Network Architecture and Model building.

Work Done / Learning Implementation

Applied CNN model in the sample dataset to get an idea. Evaluated the basic performance of the model.



Date: 27 June 2023

Learnings

Learned more about Convolutional Neural Network Classifier.
Also explored about the deployment of a model using CV studio.

Date: 28 June 2023

Learnings

Learned about the important concept related to machine learning like forward propagation, gradient descent, loss function. And also learned about main steps involved in every DL model.

Work Done / Learning Implementation

Created the image batches and plotted the images. Practiced about how to calculate the activations.



Date: 29 June 2023

Learnings:

Today I have learned about model building using CNN. And Explored about the keras and tensorflow libraries.

Work Done / Learning Implementation

Created a model using CNN for the sample dataset.

Date: 30 June 2023

Learnings

Learned about various functionalities of OpenCV, including converting RGB images to grayscale, resizing images, flipping images, cropping images, and drawing shapes such as rectangles, circles, and lines on the images.

Work Done / Learning Implementation

I implemented various functionalities of OpenCV, including converting RGB images to grayscale, resizing images, flipping images, cropping images, and drawing shapes such as rectangles, circles, and lines on the images.

Date: 01 July 2023

Learnings

Learned about various functionalities of OpenCV like Live Direct Drawing. Tried to make a cropping tool using OpenCV. Learned about how to work with videos using OpenCV. Explored about how to perform EDA on image dataset.

Work Done / Learning Implementation

I implemented various functionalities of OpenCV like Live Direct Drawing. Tried to make a cropping tool using OpenCV.

Date: 02 July 2023

Learnings

I have gained knowledge on conducting Exploratory Data Analysis (EDA) for image datasets and successfully implemented it in practice. Also I have revisited and refreshed my understanding of important concepts in deep learning.

Work Done / Learning Implementation

I experimented with annotating certain images within the dataset.