To,

IITD-AIA Foundation of Smart Manufacturing

Subject: **Weekly Progress Report for Week 7**

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.

What happened last week – Week 6:

- Experiment with various hyperparameters
- Explored about Lazy Predict tool
- Implementation of YOLO Algorithm
- Object detection and its associated algorithms
- Annotated images using labelimg tool
- Learned about Neural Style Transfer
- Object detection with Faster R-CNN

What's happening this -week 7:

- Machine learning classification Methods
- Created a custom classifier and trained it
- Machine Learning Model Deployment With Flask
- Improve the model's accuracy
- Object detection and abject detection algorithms

Weekly Progress:

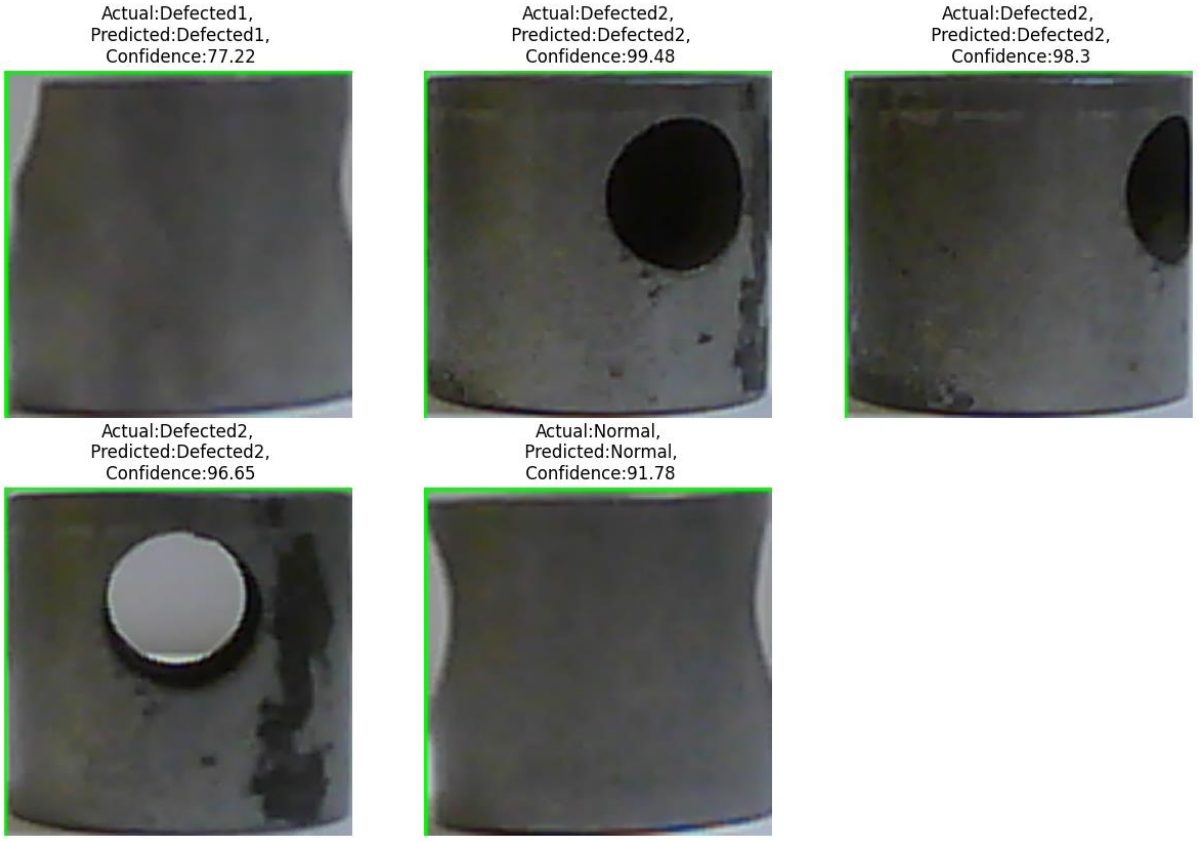
July 17:(Monday)

Learned about the different Machine learning classification Methods commonly used for Computer vision, including k nearest neighbours, Logistic regression, SoftMax Regression and Support Vector Machines.

July 18:(Tuesday)

Created a custom classifier and trained it and test it on the images.

Continued working on the project. Created a custom classifier and trained it and test it on the images.



July 19:(Wednesday)

Continuing with the model deployment part. Leaned about Deployment of Machine Learning Model Deployment With Flask .

July 20:(Thursday)

Today I have just learned more about model deployment.

Deployment Machine Learning Model With Flask.

July 21:(Friday)

Learned more about machine learning algorithms. Started the deployment of the model.

July 22:(Saturday)

Learned about how improve the model's accuracy. Due to ongoing exams, I have not been able to implement anything .

July 23:(Sunday)

I have learned more about object detection and abject detection algorithms.

Due to my ongoing exams, I haven't had the chance to implement anything at the moment.

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ID	Name
1	Numpy/Pandas
2	Basics of CNN |Convoution Operation|Padding
3	PIL Library | OpenCV
4	Image Manipulation with PIL
5	Tensorflow Data Input Pipeline|CNN
6	Model Building using CNN
7	CNN Classifiers
8	KNN for Object Detection
9	Fundamental Concepts DL
10	Implementation DL Concepts
11	Build a Model Using CNN
12	Image Manipulation with OpenCV
13	Implemented various functionalities of OpenCV
14	Exploratory Data Analysis (EDA)
15	Tensorflow framework for deep learning.
16	YOLO algorithm for object detection.
17	Semantic segmentation|U-Net architecture
18	Model Building
19	Model Training using AC piston Dataset
20	Checked the accuracy and loss of the model.
21	Completed the abstract writing
22	ResNet,AlexNet,MobileNet.
23	created model by using Resnet Pretrained mo...
24	object detection algorithms.
25	Fine-tuned the CNN model
26	Experiment with various hyperparameters and...
27	Machine learning classification methods
28	Explored about Lazy Predict tool
29	Explored about implementation of YOLO Algori...
30	Bounding box predictions, intersection over uni...
31	Annotated images
32	Learned about Neural Style Transfer.
33	Object detection with Faster R-CNN
34	Different Machine learning classification Methods
35	Created a custom classifier and trained it
36	Started learning about model deployment
37	Started Deploying the model
38	Implementation of model deployement.
39	Deployement With Flask
40	Revised importnt machine learning concepts.
41	Continued project work
42	Improve the model's accuracy.
43	object detection and abject detection algorithms.
44	Created a custom classifier and trained it
45	Tried working on YOLO algorithm.
46	Learned About the different Algorithm