Project Milestones – Computer Vision 2

Criteria	Pts	Week	Topic
Part 1. 1 a - Import and read 'images.npy'.	1.0 pts	Common part	Import and Understand the data
Part 1.1 b - Split the data into Features(X) & labels(Y). Unify shape of all the images.	3.0 pts	Week 1	Import and Understand the data
Part 1.1 c - Split the data into train and test [400:9].	1.0 pts	Common part	Import and Understand the data
Part 1.1 d - Select random image from the train data and display original image and masked image.	2.0 pts	Common part	Import and Understand the data
Part 1.2 a - Design a face mask detection model.	4.0 pts	Week 5	Model building
Part 1.2 b - Design your own Dice Coefficient and Loss function.	2.0 pts	Week 6	Model building
Part 1.2 c - Train and tune the model as required.	3.0 pts	Common part	Model building
Part 1.2 d - Evaluate and share insights on performance of the model.	2.0 pts	Common part	Model training
Part 1.3 - Test the model predictions on the test image: 'image with index 3 in the test data' and visualise the predicted masks on the faces in the image.	2.0 pts	Common part	Model training

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Part 2.1 a Read/import images from folder 'training_images'.	2.0 pts	Common part	Steps and tasks
Part 2.1 b - Write a loop which will iterate through all the images in the 'training_images' folder and detect the faces present on all the images.	3.0 pts	Week 4	Steps and tasks
Part 2.1 c - From the same loop above, extract metadata of the faces and write into a DataFrame.	3.0 pts	Week 1	Steps and tasks
Part 2.1 d - Save the output Dataframe in .csv format..	2.0 pts	Common part	Steps and tasks

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Part 2.1 a - Unzip, read and Load data('PINS.zip') into session.	2.0 pts	Common part	Steps and tasks
Part 2.1 b - Write function to create metadata of the image.	4.0 pts	Week 1	Steps and tasks
Part 2.1 c - Write a loop to iterate through each and every image and create metadata for all the images.	4.0 pts	Week 1	Steps and tasks
Part 2.1 d - Generate Embeddings vectors on the each face in the dataset.	4.0 pts	Week 4	Steps and tasks
Part 2.1 e - Build distance metrics for identifying the distance between two similar and dissimilar images.	4.0 pts	Week 4	Steps and tasks
Part 2.1 f - Use PCA for dimensionality reduction.	2.0 pts	Week 1	Steps and tasks
Part 2.1 g - Build an SVM classifier in order to map each image to its right person.	4.0 pts	Week 1	Steps and tasks
Part 2.1 h - Import and display the the test images.	2.0 pts	Common part	Steps and tasks
Part 2.1 i - Use the trained SVM model to predict the face on both test images.	4.0 pts	Common part	Steps and tasks