IBM AI Capstone Project with Deep Learning.

Course Info: https://www.coursera.org/learn/ai-deep-learning-capstone?specialization=ai-engineer

Course Certificate:

https://www.coursera.org/account/accomplishments/certificate/ES3EAPPA8MHE

Course Badge: https://www.credly.com/badges/a3fa8f53-6d97-458d-98a5-c5497fcc9cdd/

Project About:
In this capstone, learners will apply their deep learning knowledge and expertise to a real world challenge. They will use a library of their choice to develop and test a deep learning model. They will load and pre-process data for a real problem, build the model and validate it. Learners will then present a project report to demonstrate the validity of their model and their proficiency in the field of Deep Learning.

1). All file related to the project:

https://github.com/Saurav-1976/IBM_AI_Engineer_Capstone/tree/main

2). All Jupyter Notebooks [Python kernel]

A. [Pytorch Load and Display Data]
https://github.com/Saurav-1976/IBM_AI_Engineer_Capstone/blob/main/1.0_load_and_display_data.ipynb

B. [Pytorch-data-loader]
https://github.com/Saurav-1976/IBM_AI_Engineer_Capstone/blob/main/2.1_data_loader_PyTorch.ipynb

C. [Pytorch-linear-classifier]
https://github.com/Saurav-1976/IBM_AI_Engineer_Capstone/blob/main/3.1_linearclassiferPytorch.ipynb

D. [Pytorch-resnet-implementation]
https://github.com/Saurav-1976/IBM_AI_Engineer_Capstone/blob/main/4.1_resnet18_PyTorch.ipynb

E. [Tensorflow-Load-data]
https://github.com/Saurav-1976/IBM_AI_Engineer_Capstone/blob/main/DL0321EN-1-1-Loading-Data-py-v1.0.ipynb

F. [Tensorflow-data-Preparation]
https://github.com/Saurav-1976/IBM_AI_Engineer_Capstone/blob/main/DL0321EN-2-1-Data-Preparation-py-v1.0.ipynb

G. [Tensorflow-loading-pretrained-models]
https://github.com/Saurav-1976/IBM_AI_Engineer_Capstone/blob/main/DL0321EN_3_1_Pretrained_Models_py_v1_0.ipynb

H. [Tensorflow-Comparing-pretrained-models]
https://github.com/Saurav-1976/IBM_AI_Engineer_Capstone/blob/main/DL0321EN_4_1_Comparing_Models_py_v1_0.ipynb

3). Final Deliverable: [Github Gists]

[Pytorch Analysis]

A. [Pytorch Load and Display Data]
https://gist.github.com/Saurav-1976/66b9d8ee28dabbf23afba2dcefaa8e60

B. [Pytorch-data-loader]
https://gist.github.com/Saurav-1976/4f374daa5f5a9c8b37d1710c0054a88c

C. [Pytorch-linear-classifier]
https://gist.github.com/Saurav-1976/9ac5939640cde3a768d4eadeb4963c4b

D. [Pytorch-resnet-implementation]
https://gist.github.com/Saurav-1976/3721506ffb1201913c69d145299755a6

When the last notebook is executed it generates a fully trained Pytorch Resnet model on the training data and saves it in the file 'Cap_pytorchmodel.pth', one of the final deliverables.

[Tensorflow Analysis]

A. [Tensorflow-Load-data]
https://gist.github.com/Saurav-1976/8f4cdd63a2ea840a9df968161f8af3d6

B. [Tensorflow-data-Preparation]
https://gist.github.com/Saurav-1976/9bb6270060d7e2aa9bf9b6d09306bc1f

C. [Tensorflow-loading-pretrained-models]
https://gist.github.com/Saurav-1976/e71beedd78ac54f979eb6b4984aa3973

D. [Tensorflow-Comparing-pretrained-models]
https://gist.github.com/Saurav-1976/c973efbe74e49d72176d9d447e709258

When the notebook C is executed it generates a fully trained Tensorflow Resnet model on the training data and saves it in the file 'classifier_resnet_model.h5', one of the final deliverables.

When the notebook D is executed it generates a fully trained Tensorflow VGG16 model on the training data and saves it in the file 'classifier_vgg16_model.h5', one of the final deliverables.