

Advantages of Transfer Learning

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1. Less time to train the model



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Epoch 13/15  
1646/1646 [-----] - 7s 4ms/step - loss: 0.0495 - acc: 0.9824 - val_loss: 0.7412 - val_acc: 0.8031  
Epoch 14/15  
1646/1646 [-----] - 7s 4ms/step - loss: 0.0718 - acc: 0.9708 - val_loss: 0.6611 - val_acc: 0.8215  
Epoch 15/15  
1646/1646 [-----] - 8s 5ms/step - loss: 0.0271 - acc: 0.9909 - val_loss: 0.6508 - val_acc: 0.8272
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CNN trained from Scratch

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1152/1152 [=====] - 0s 326us/step - loss: 0.1041 - acc: 0.9779 - val_loss: 0.1964 - val_acc: 0.9119  
Epoch 13/15  
1152/1152 [=====] - 0s 321us/step - loss: 0.1040 - acc: 0.9766 - val_loss: 0.1893 - val_acc: 0.9170  
Epoch 14/15  
1152/1152 [=====] - 0s 305us/step - loss: 0.1018 - acc: 0.9766 - val_loss: 0.1937 - val_acc: 0.9180  
Epoch 15/15  
1152/1152 [=====] - 0s 314us/step - loss: 0.1009 - acc: 0.9770 - val_loss: 0.1916 - val_acc: 0.9200
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Model trained using transfer learning

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Summary of the Module

- Different ways to achieve knowledge in the real world
- What is transfer learning and pre-trained models
- How to choose the right pre-trained model
- Steps for creating emergency vs non-emergency vehicle classifier using transfer learning and implemented them in Python
- Different ways of fine tuning the model
- Advantages of Transfer Learning