

Introduction to Transfer Learning

Steps for Creating an Emergency vs Non-Emergency Classifier using transfer learning

Training Part

1. Import necessary libraries
2. Load data
3. Pre-Process data
4. Load weights of pre-trained model
5. Fine tune the model for the current problem
6. Validate if it works fine, iterate again if it does not

Prediction

1. Get predictions on new data

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Different ways of Fine Tuning the model



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1. Feature Extraction

```
# extract features using the pretrained VGG16 model  
# for training set  
base_model_pred = base_model.predict(X_train)  
#for validation set  
base_model_pred_valid = base_model.predict(X_valid)
```

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1. Feature Extraction
2. Using the Architecture of the pre-trained model

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1. Feature Extraction
2. Using the Architecture of the pre-trained model
3. Train some layers while freeze others