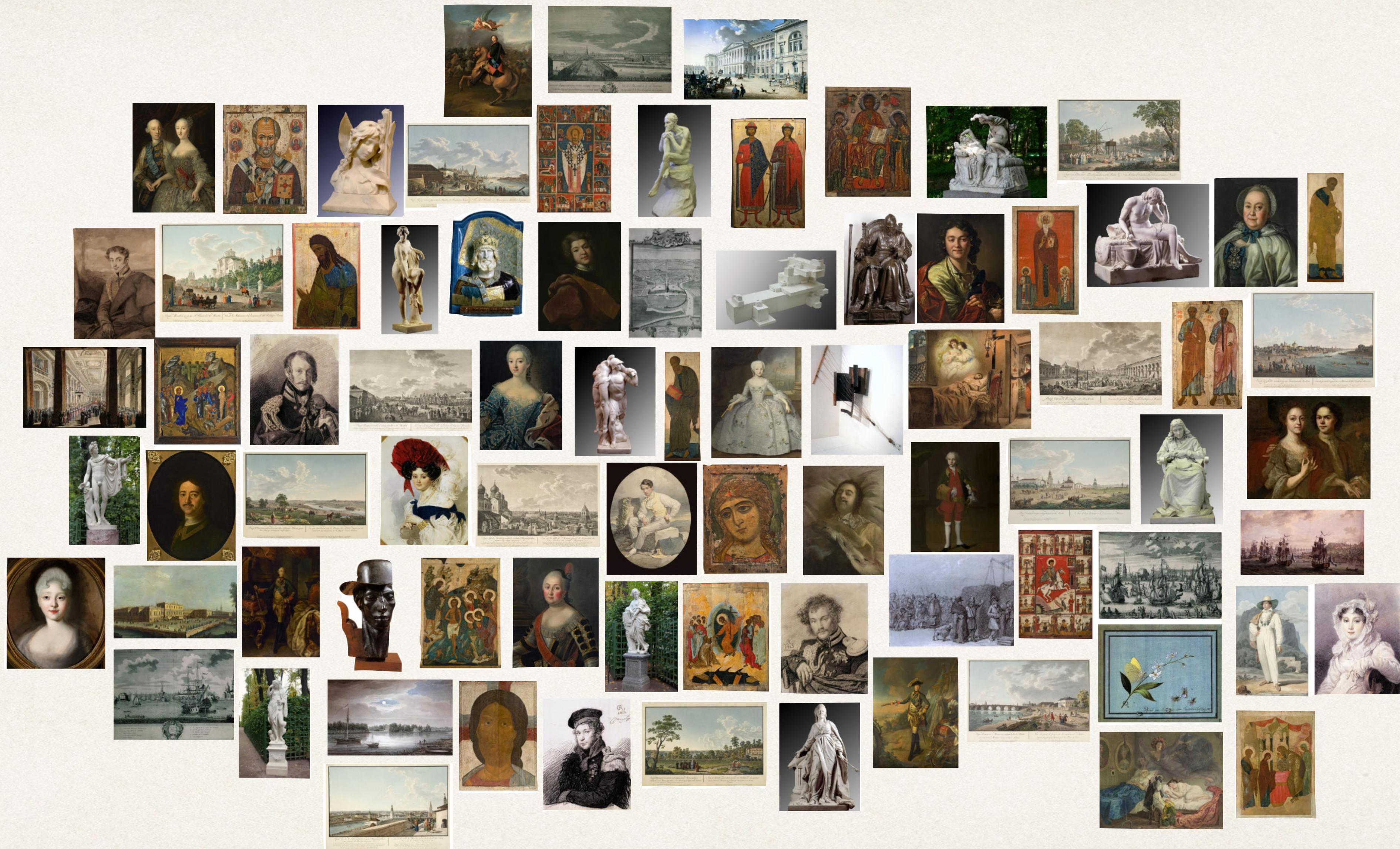


Art Images

- ❖ Drawings and Watercolours
- ❖ Works of Paintings
- ❖ Sculpture
- ❖ Graphic Art
- ❖ Iconography (Old Russian Art)





```
1 model = Sequential([
2     Conv2D(32, (3, 3), input_shape=input_shape),
3     Activation('relu'),
4     MaxPooling2D(pool_size=(2, 2)),
5
6     Conv2D(32, (3, 3)),
7     Activation('relu'),
8     MaxPooling2D(pool_size=(2, 2)),
9
10    Conv2D(64, (3, 3)),
11    Activation('relu'),
12    MaxPooling2D(pool_size=(2, 2)),
13
14    Flatten(),
15    Dense(64),
16    Activation('relu'),
17    Dropout(0.5),
18    Dense(5),
19    Activation('sigmoid')
20])
```

Test Accuracy: 91.88%



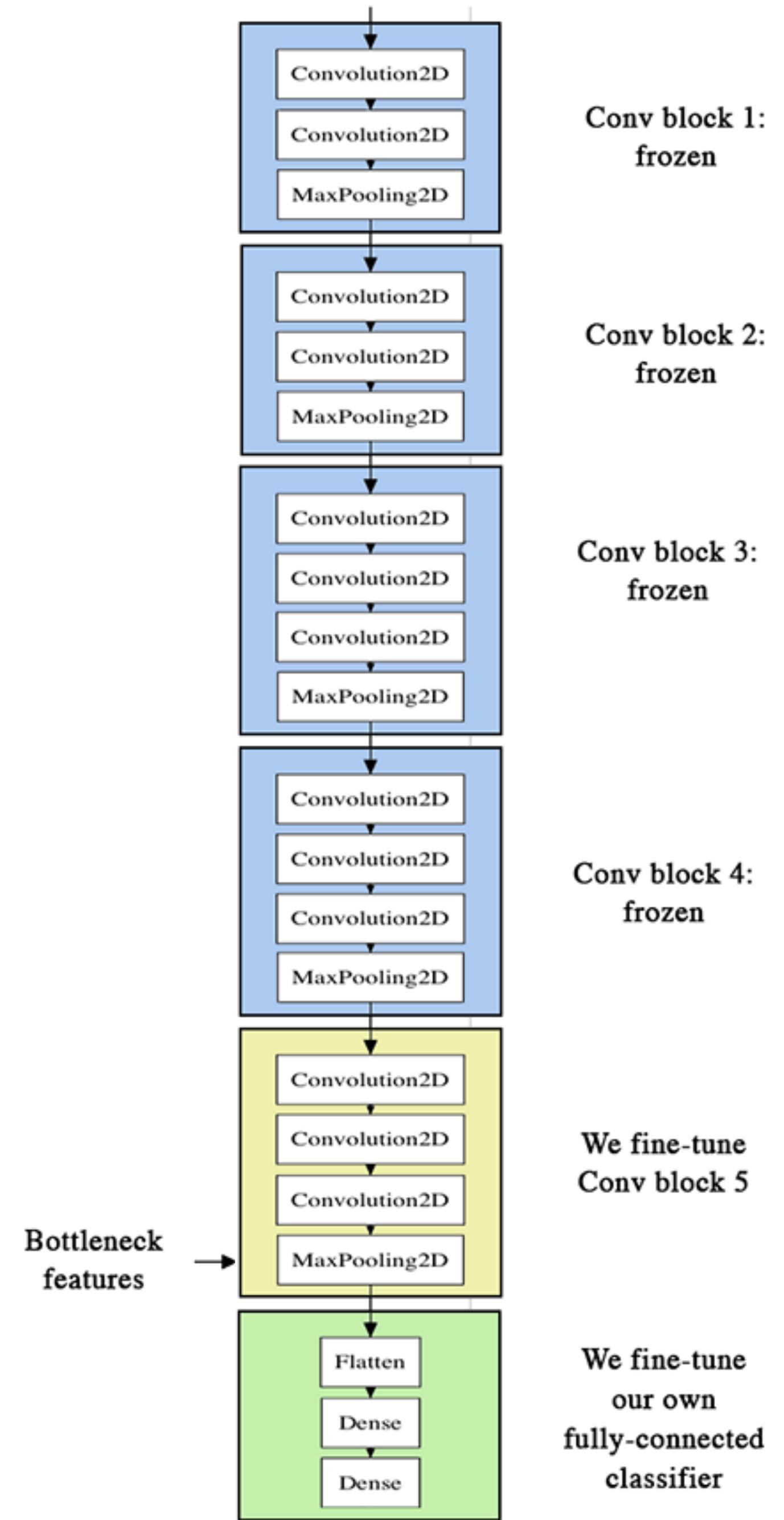
```
1 VGG16_model = VGG16(include_top=False,  
2                      weights='imagenet')  
3  
4 model = Sequential([  
5     VGG16_model,  
6     Flatten(input_shape=train_data.shape[1:]),  
7     Dense(256, activation='relu'),  
8     Dropout(0.5),  
9     Dense(1, activation='sigmoid')  
10])
```

Test Accuracy: 91.88%



Which Approach?

- ❖ Add fine tuning?
- ❖ Fine tune last block?
- ❖ How many epochs?
- ❖ How large should the batch size be?
- ❖ etc.



AWS

- ❖ GPUs
- ❖ Environment management
- ❖ DevOps Automation



Conclusion

Pre-trained networks

AWS