Week 1 Quiz

TOTAL POINTS 8

1. What does flow_from_directory give you on the ImageGenerator? 1 point

- [ ] The ability to easily load images for training
- [ ] The ability to pick the size of training images
- [ ] The ability to automatically label images based on their directory name
- [x] All of the above

2. If my image is sized 150x150, and I pass a 3x3 Convolution over it, what size is the resulting image? 1 point

- [ ] 150x150
- [x] 148x148
- [ ] 450x450
- [ ] 153x153

3. If my data is sized 150x150, and I use Pooling of size 2x2, what size will the resulting image be? 1 point

- [ ] 148x148
- [ ] 149x149
- [x] 75x75
- [ ] 300x300

4. If I want to view the history of my training, how can I access it? 1 point

- [ ] Pass the parameter 'history=true' to the model.fit
- [ ] Use a model.fit_generator
- [ ] Download the model and inspect it
- [x] Create a variable 'history' and assign it to the return of model.fit or model.fit_generator

5. What's the name of the API that allows you to inspect the impact of convolutions on the images? 1 point

- [ ] The model.pools API
- [ ] The model.convolutions API
- [ ] The model.images API
- [x] The model.layers API

6. When exploring the graphs, the loss levelled out at about .75 after 2 epochs, but the accuracy climbed close to 1.0 after 15 epochs. What's the significance of this? 1 point

- [ ] There was no point training after 2 epochs, as we overfit to the validation data
- [ ] There was no point training after 2 epochs, as we overfit to the training data
- [x] A bigger training set would give us better validation accuracy
- [ ] A bigger validation set would give us better training accuracy

7. Why is the validation accuracy a better indicator of model performance than training accuracy? 1 point

- [ ] It isn't, they're equally valuable
- [ ] There's no relationship between them
- [x] The validation accuracy is based on images that the model hasn't been trained with, and thus a better indicator of how the model will perform with new images.
- [ ] The validation dataset is smaller, and thus less accurate at measuring accuracy, so its performance isn't as important

8. Why is overfitting more likely to occur on smaller datasets? 1 point

- [ ] Because in a smaller dataset, your validation data is more likely to look like your training data
- [ ] Because there isn't enough data to activate all the convolutions or neurons
- [ ] Because with less data, the training will take place more quickly, and some features may be missed
- [x] Because there's less likelihood of all possible features being encountered in the training process.

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