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1. Coding tasks

2) ConvNet2 has accuracy of 37% after 10 epoch, while ConvNet1 achieved 32%. So more filters perform better.

3) ConvNet3 has accuracy of 37%, same as ConvNet2's performance.
We can now achieve the same performance using small filters meanwhile using less trainable parameters.

4) Yes ConvNet4 is performing better, with accuracy of 48%.

Batch normalization layer makes the model more generalized, thus resulting in higher accuracy.

5) The accuracy of first modified transfer model is 58%.
The accuracy of second modified transfer model is about 37%.

The accuracy of third modified transfer model is 43%.

The accuracy of fourth model is 42%.

The accuracy of fifth model is 52%.

6) Skip connections and shortcuts that allow the network to bypass some layers, enabling the network to learn residual mappings.