Day 14 - Fine-tuning HyperParameters

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Fine tuning Hyperparameters

Author: **Chandan Kumar**

enchandan.com

Notes

So far...

- We learnt to build neural networks to tackle machine learning problems
- But what about choosing the number of hidden layers, the number of neurons in the network and other hyperparameters

Possible Hyperparameters to tweak

- Change the number of layers
- the number of neurons per layer
- Type of activation function in each layer
- Weight initialization logic & many more

How do I know which combination of hyperparameters are the best for my task?

- Try many combination and see which combination works best on the validation set

How do I try many combinations?

- Trying out multiple combinations of hyperparameters manually is very hard. So we will use RandomSearchCV or GridSearchCV
- We can wrap our keras models in objects that mimic regular scikit-learn regressors
- `keras.wrappers.scikit_learn.KerasRegressor(keras_model)`

Code

Google Colaboratory

G https://colab.research.google.com/drive/1LR78EXPb_kOCLx0-VVL_XbZtjFOxT0J7?usp=sharing