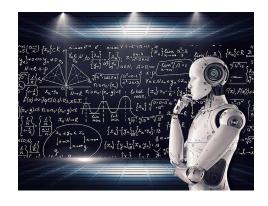
# Hyperparameter Selection

**Deep Learning Pre-Work** 

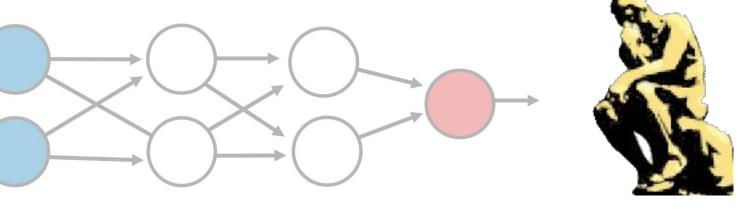


# Machine Learning



Source: Wikimedia Commons

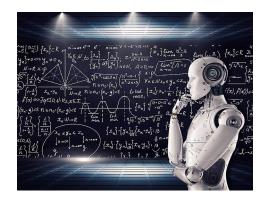
# Hyperparameter Selection



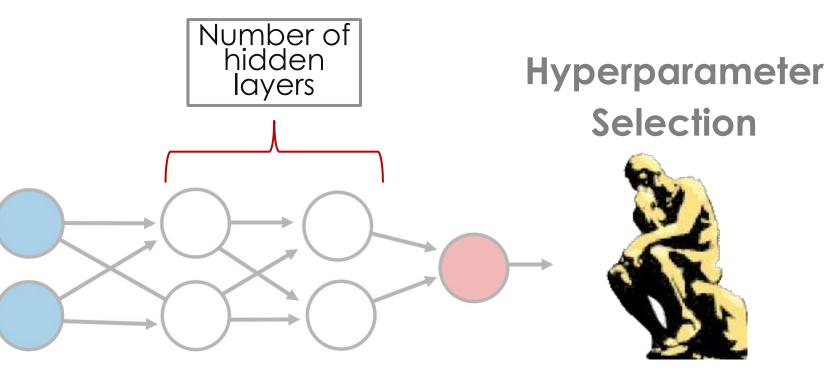
Source: Wikimedia Commons



# Machine Learning

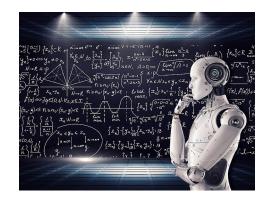


**Source: Wikimedia Commons** 



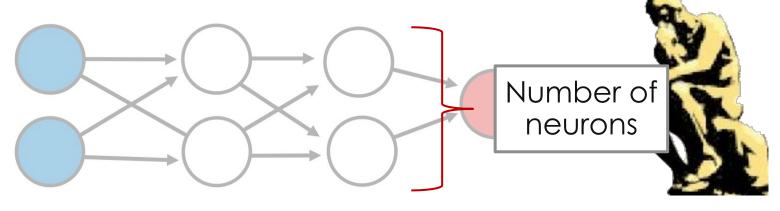


# Machine Learning



Source: Wikimedia Commons

# Hyperparameter Selection

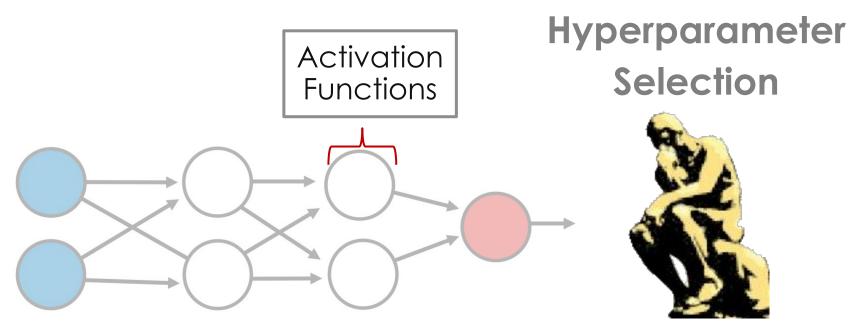




## Machine Learning

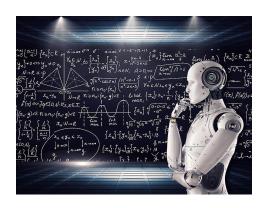


Source: Wikimedia Commons

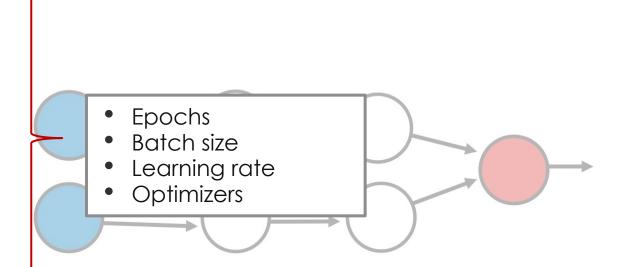




# Machine Learning



Source: Wikimedia Commons



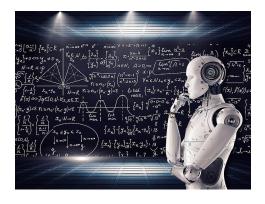
# Hyperparameter Selection



Source: Wikimedia Commons



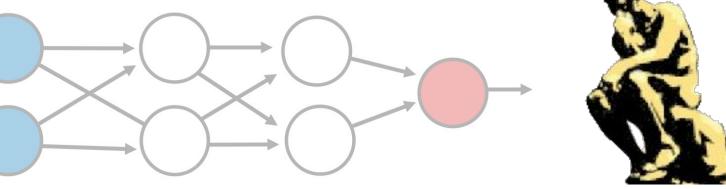
### Machine Learning



Source: Wikimedia Commons

- Dropout rate
- Regularization
- Normalization Technique
- ...and more

### Hyperparameter Selection





### Tips and Strategies

5)



Don't reinvent the wheel Start small and iterate 3) Look at loss plots **Tune hyperparameters** 

Don't worry about perfection

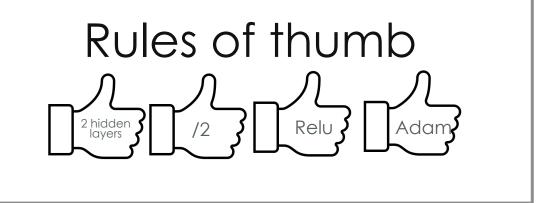
### 1. Don't reinvent the wheel





Previous projects





Google

Q deep learning predicting \_\_\_\_\_ X

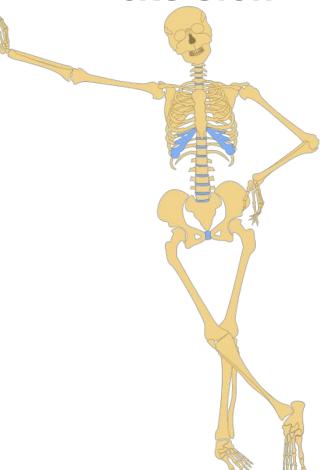
Google Search

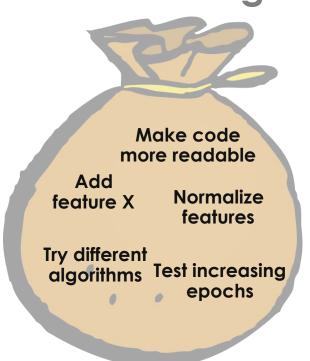
### 2. Start small and iterate

Great Learning

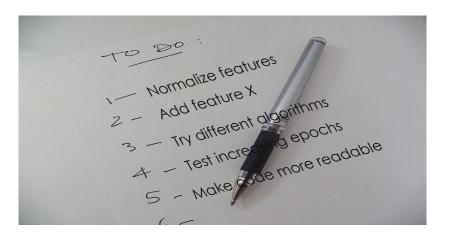
1. Build the skeleton

2. Collect ideas for enhancing



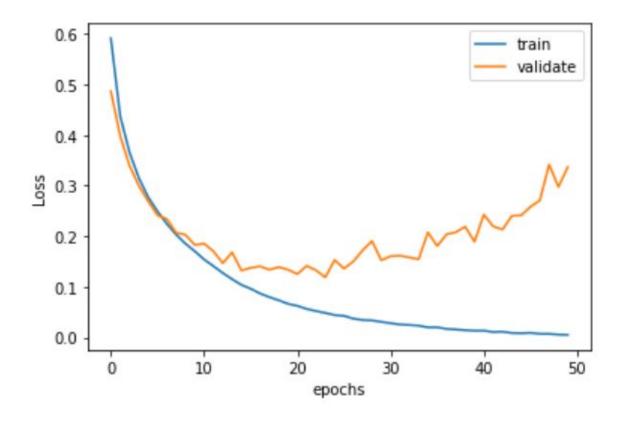


# 3. Implement one at a time until the deadline



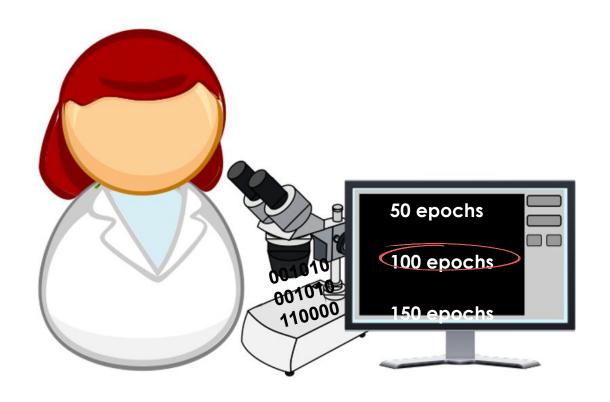
### 3. Look at loss plots





### 4. Tune hyperparameters





#### 5. Don't worry about perfection



