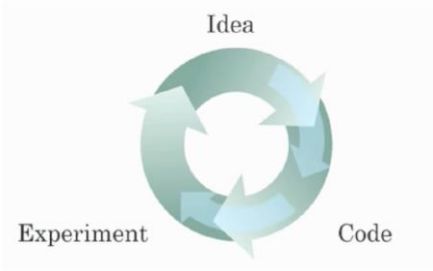
Important Questions -

1. What does the analogy “AI is the new electricity” refer to?
   - Similar to electricity starting about 100 years ago, AI is transforming multiple industries. AI is transforming many fields from the car industry to agriculture to supply-chain.

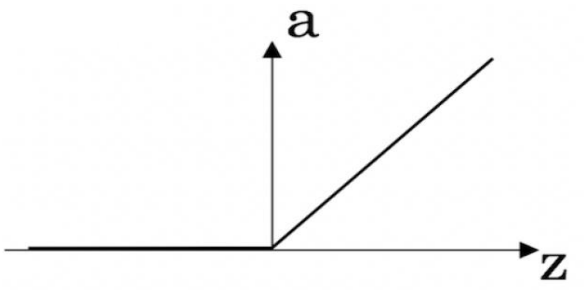
2. Which of these are reasons for Deep Learning recently taking off?
   - We have access to a lot more computational power. The development of hardware, perhaps especially GPU computing, has significantly improved deep learning algorithms' performance.
   - We have access to a lot more data. The digitalization of our society has played a huge role in this

3. Why iterating over different ML ideas is feasible now a days?



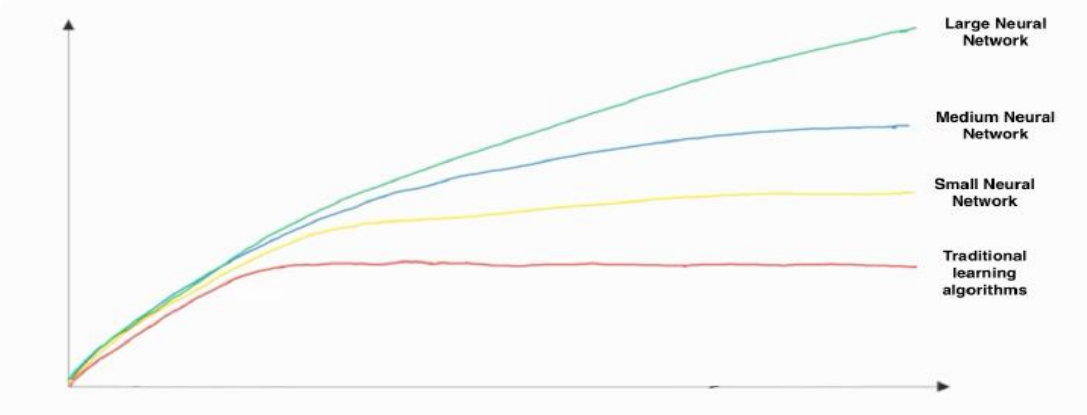
   - Being able to try out ideas quickly allows deep learning engineers to iterate more quickly.
   - Faster computation can help speed up how long a team takes to iterate to a good idea.
   - Recent progress in deep learning algorithms has allowed us to train good models faster (even without changing the CPU/GPU hardware).

4. ReLU activation function?



5. Why is an RNN (Recurrent Neural Network) used for machine translation, say translating English to French?
   - It can be trained as a supervised learning problem.
   - It is applicable when the input/output is a sequence (e.g., a sequence of words). An RNN can map from a sequence of English words to a sequence of French words.

6. Amount of data vs. model size



- x-axis is the amount of data
- y-axis (vertical axis) is the performance of the algorithm
- Increasing the training set size generally does not hurt an algorithm's performance, and it may help significantly.
- Increasing the size of a neural network generally does not hurt an algorithm's performance, and it may help significantly.