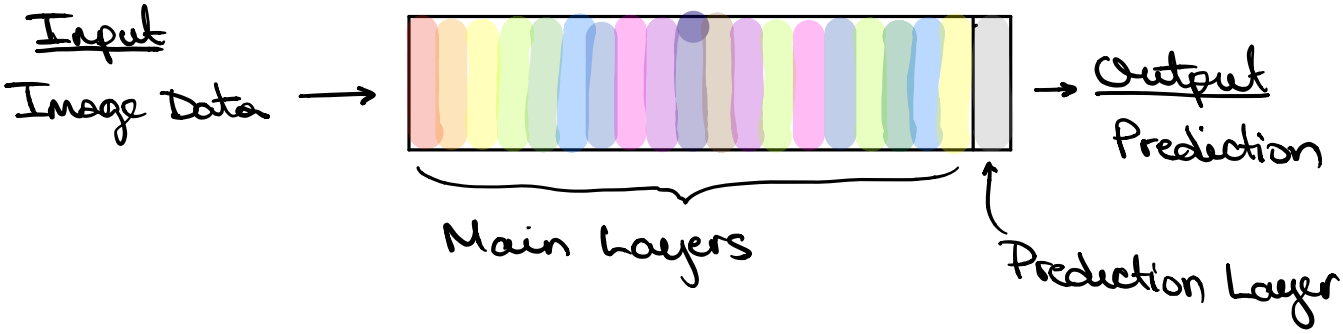
- Take what was solved in another model and use it to help solve this model.

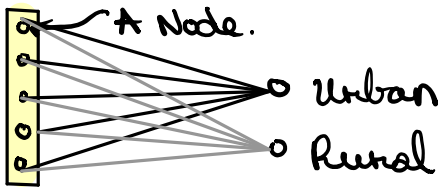
  ↳ Early layers of a NN identify simple patterns/shapes. Later find more complex patterns. Last layer makes predictions.

  ↳ Can use lower layer low resolution pattern matching as the basis of a similar model – piggy backing – the former model, since those low resolution pattern matching are universal / similarity required.

ResNet Model



The last layer should be a 1-d tensor with numbers describing the content of the image. (Due to channel pooling – e.g by average).



Each node of the former layer might affect whether the image is Urban or Rural and thus connections are made.

This model will be trained to learn which factors from the former layer contrib. to Urban/Rural classification.

(*) when connecting all features from (1) layer to next – known as "dense" layer

The prediction layer will produce a bunch of scores.
The Softmax function will translate those scores into probabilities summing to 1) – all positive.

The training will seek to improve and learn – measured by a loss function. The loss function will be minimized through an optimization technique – like stochastic gradient descent.