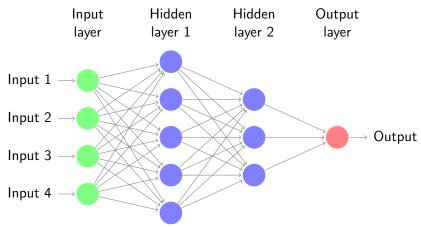# Neural networks
Architectures and training tips

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IPRally Technologies
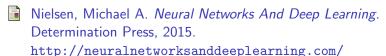
09.01.2019

What is a neural network?

Modified from http://www.texample.net/tikz/examples/neural-network/

Why neural networks?

- Can approximate any function [Hornik, 1991]
- May learn to respond to unexpected patterns
- Useful especially when the amount of data is large
- Less need for feature engineering compared to traditional ML methods

References

Nielsen, Michael A. *Neural Networks And Deep Learning*. Determination Press, 2015. http://neuralnetworksanddeeplearning.com/

Hornik, Kurt. *Approximation Capabilities of Multilayer Feedforward Networks*. Neural Networks, 4(2), 251–257, 1991.