

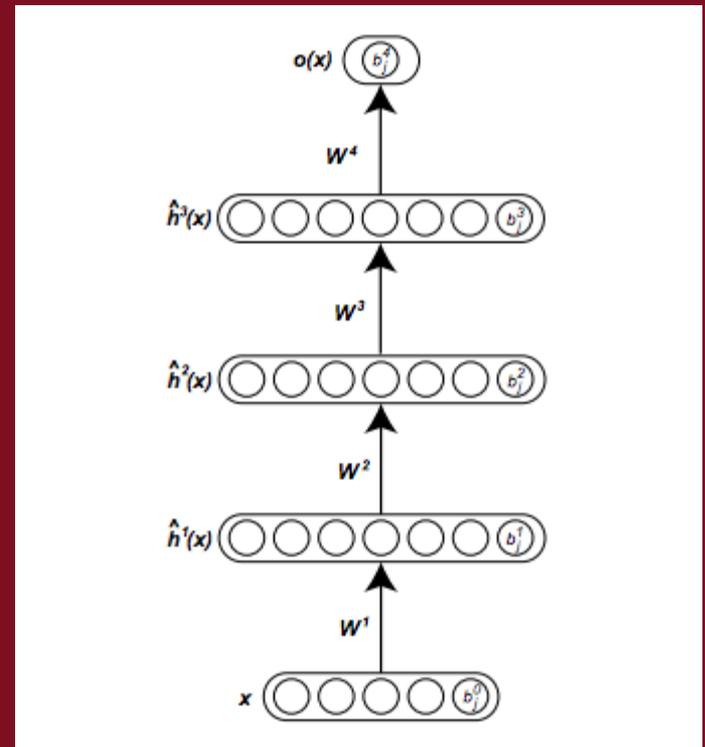
Deep Neural Networks

Natasha Parikh and Miranda Parker

A series of horizontal stripes in various colors (yellow, green, blue, dark blue, orange, red, white, green) located at the bottom of the slide.

What are they?

- Lots of hidden layers!
- Only a few parameters per layer



Larochelle et al. (2006)

Why do we want to use them?



How will we use them?

- Digits?
- Music?
- Colors!



References

Hinton, G.E., Osindero, S., & Teh, Y.-W. (2006). "A fast learning algorithm for deep belief nets." *Neural computation*, 18(7), 1527-1554.

Larochelle, H., Bengio, Y., Louradour, J., & Lamblin, P. (2009). "Exploring strategies for training deep neural networks." *The Journal of Machine Learning Research*, 10, 1-40.

The Next Generation of Neural Networks. [Video file].
Retrieved from www.youtube.com/watch?v=AyzOUbkUf3M