## Setting Up the Architecture

## August 1, 2017

## Abstract

- Coarse model of the neuron
- $\bullet$  Activation functions (including ReLU)
- Neural Networks (NNs) with Fully-Connected Layers
- Efficient matrix multiplication in NNs
- NNs as universal function approximators
- Model capacity

## 1 Quick Intro

A very simple NN:  $s = W_2 max(0, W_1 x)$