(Almost) Fully Connected Net

2

$$\mathbf{h}^1 = \sigma\left(\mathsf{A}^1\,\mathbf{h}^0\right)$$

$$\mathbf{h}^2 = \sigma\left(\mathsf{A}^2\mathbf{h}^1\right)$$

$$\mathbf{h}^3 = \sigma\left(\mathsf{A}^3\,\mathbf{h}^2\right)$$

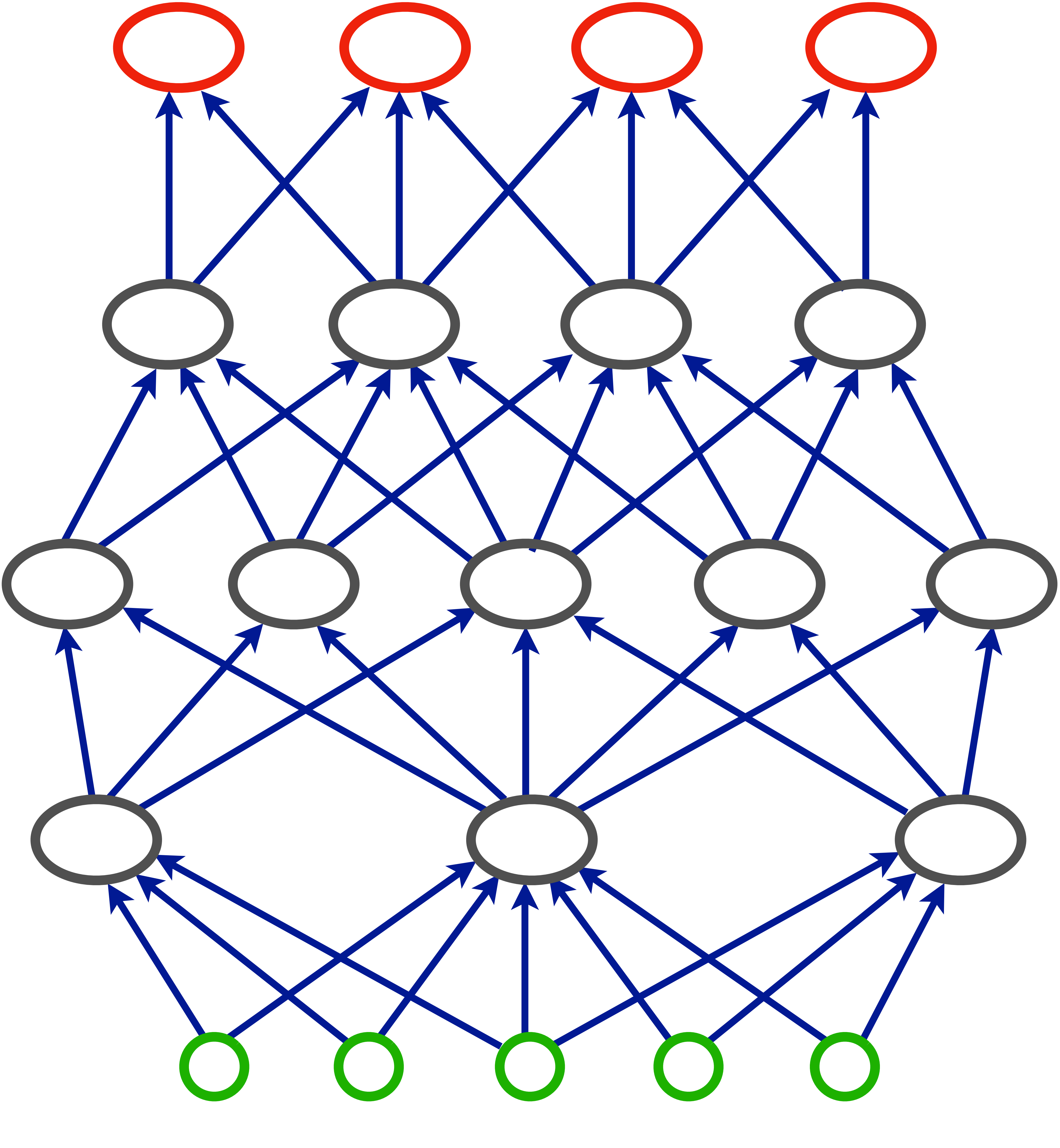
$$\mathbf{h}^4 = \sigma\left(\mathsf{A}^4 \mathbf{h}^3\right)$$

Number of neurons in layer i: $|\mathbf{h}^i| = d_i$

A^i is $d_i \times d_{i-1}$ matrix

Need to constrain each A^i

to save space & runtime



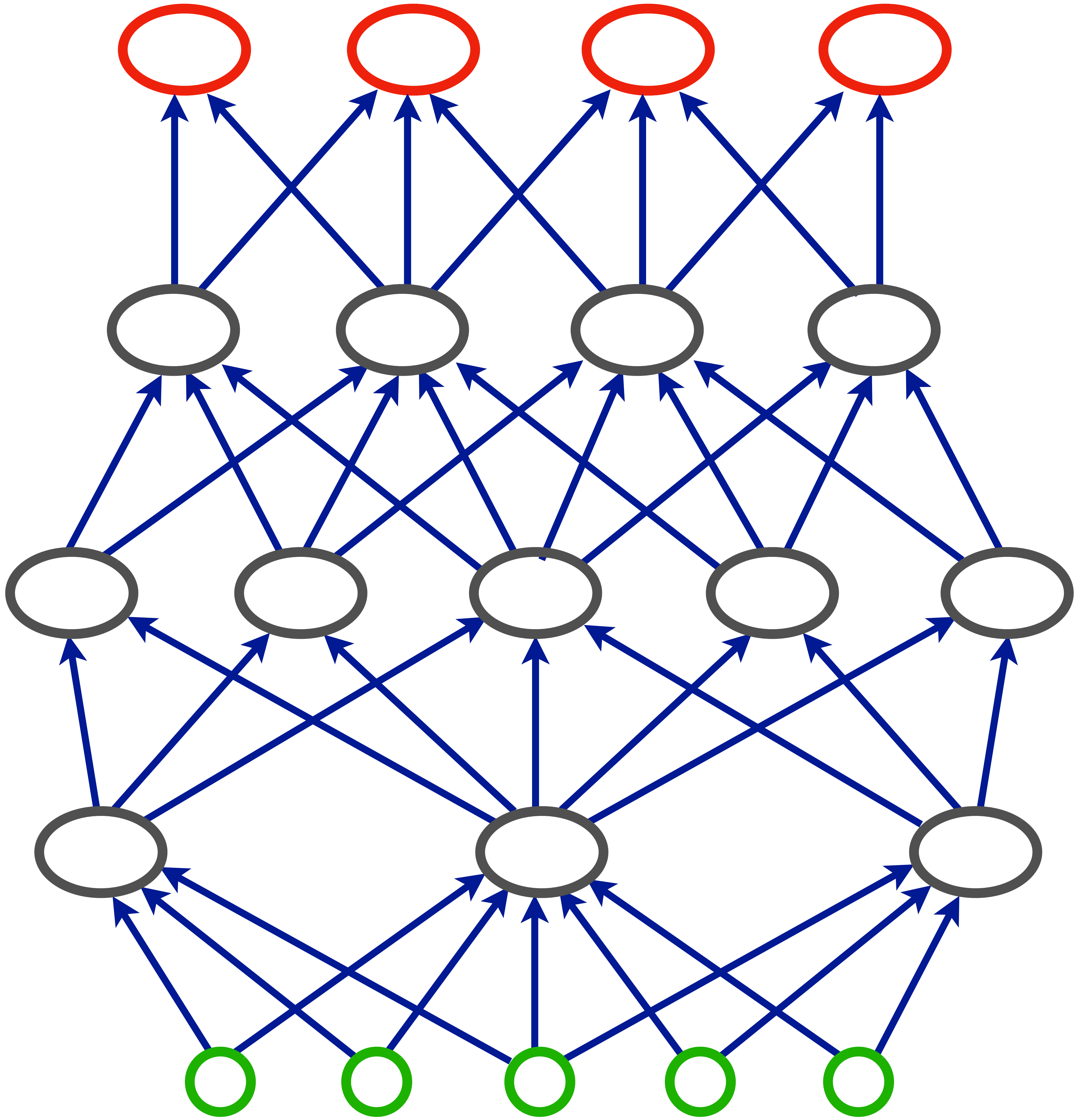
(Almost) Fully Connected Net

$$\mathbf{h}^4 = \sigma\left(A^4\,\mathbf{h}^3\right)$$

$$\mathbf{h}^3 = \sigma\left(A^3\,\mathbf{h}^2\right)$$

$$\mathbf{h}^2 = \sigma\left(A^2\,\mathbf{h}^1\right)$$

$$\mathbf{h}^1 = \sigma\left(A^1\,\mathbf{h}^0\right)$$



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Sparsity Constraints