

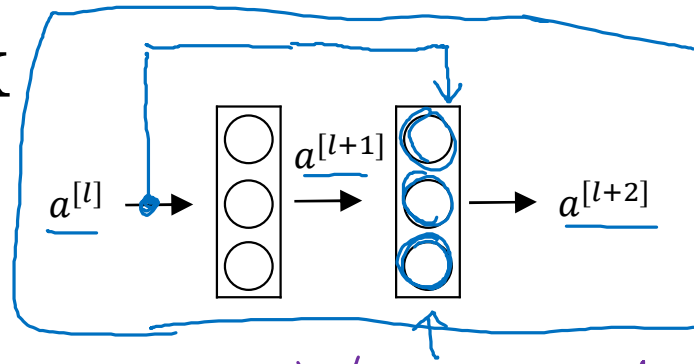


deeplearning.ai

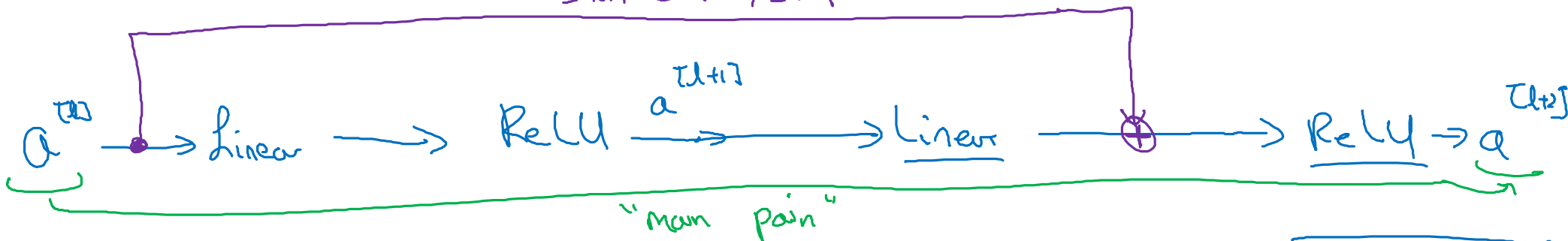
Case Studies

Residual Networks (ResNets)

Residual block



"short cut" / skip connection



$$z^{[l+1]} = W^{[l+1]} a^{[l]} + b^{[l+1]}$$

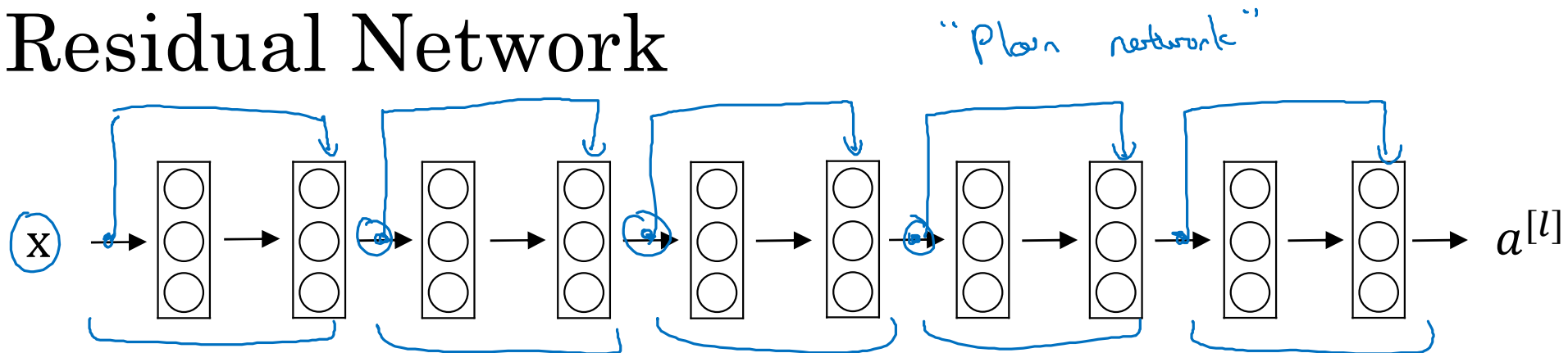
$$a^{[l+1]} = g(z^{[l+1]})$$

$$z^{[l+2]} = W^{[l+2]} a^{[l+1]} + b^{[l+2]}$$

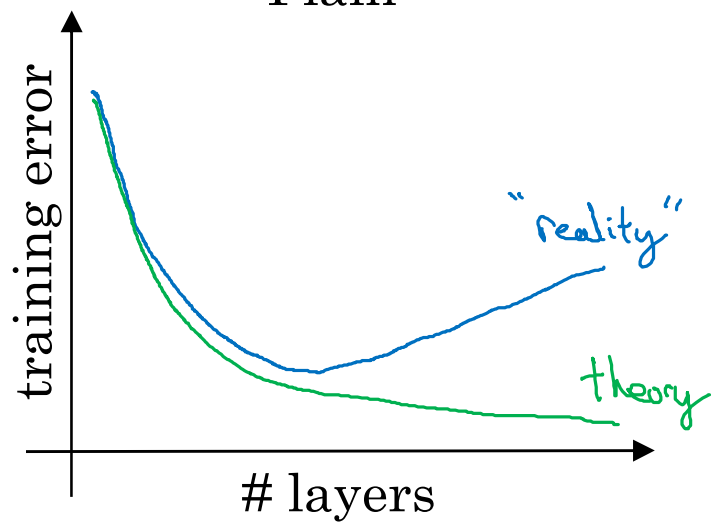
~~$$a^{[l+2]} = g(z^{[l+2]})$$~~

$$a^{[l+2]} = g(z^{[l+2]} + \underbrace{a^{[l]}}_{\text{skip}})$$

Residual Network



Plain



ResNet

