

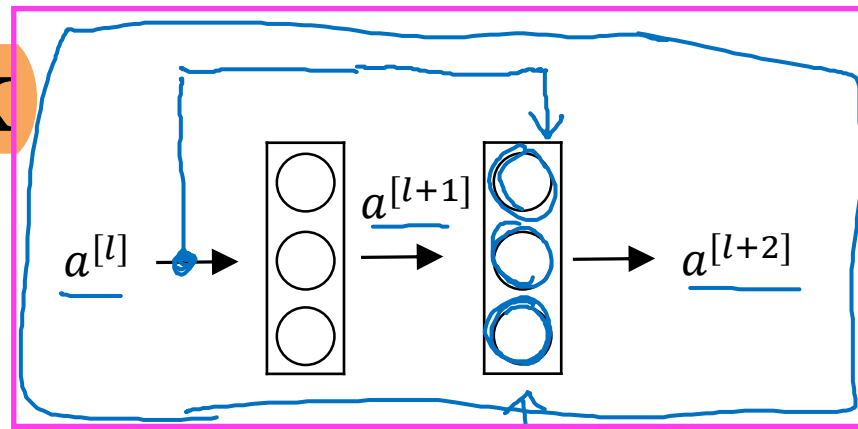


deeplearning.ai

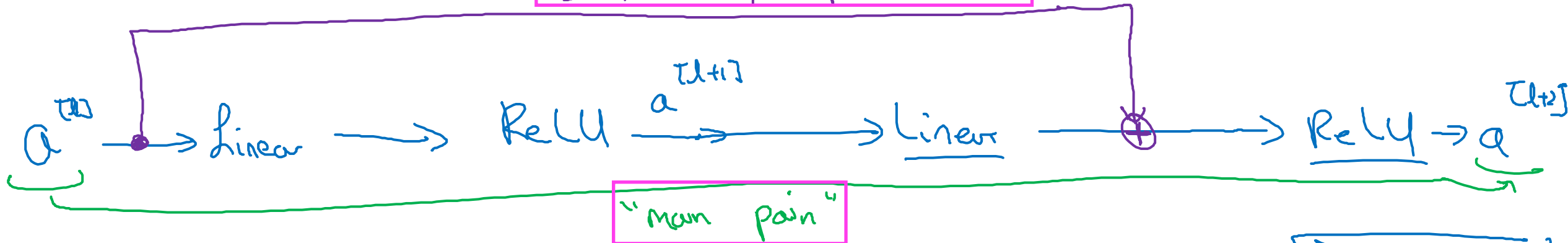
Case Studies

Residual Networks (ResNets)

Residual block



"short cut" / skip connection



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

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

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

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

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

Residual Network

