

ImageNet Classification with Deep Convolutional Neural Networks Notes

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1 Review: Stuff to Have Memorized

1.1 Trig Functions and Derivatives

$$\begin{array}{ll} \frac{d}{dx} \sin(x) = \cos(x) & \frac{d}{dx} \csc(x) = -\csc(x) \cot(x) \\ \frac{d}{dx} \cos(x) = -\sin(x) & \frac{d}{dx} \sec(x) = \sec(x) \tan(x) \\ \frac{d}{dx} \tan(x) = \sec^2(x) & \frac{d}{dx} \cot(x) = -\csc^2(x) \end{array}$$

$$a_1 = b_1 + c_1 \tag{1}$$

$$a_2 = b_2 + c_2 - d_2 + e_2 \tag{2}$$

$$\begin{bmatrix} \alpha & \beta^* \\ \gamma^* & \delta \end{bmatrix} \tag{3}$$

$$a_{11} \tag{4}$$

$$a_{21} = b_{21} \tag{5}$$

Lemma 1. *Tsjflksajflksadjflks asklfjlkdsdjf aslkfjlskdjfldk
asjflksdjflksajfasdfjskdjfd*

Proof of the Main Theorem.

$$G(t) = L\gamma!t^{-\gamma} + t^{-\delta}\eta(t) \tag{6}$$

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Proof.
$$\begin{aligned} (x+1)(x-1) + 1 &= x(x-1) + 1(x-1) + 1 \\ &= (x^2 - x) + (x-1) + 1 \\ &= x^2 + (-x + x) + (-1 + 1) \\ &= x^2 \end{aligned}$$

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Intermediate Value a balue in between