Chapter 1

Neural Network Foundations with TF

1.1 Multi-layer perceptron: our first example of a network

1.1.1 Two additional activation functions: ELU and Leaky ReLU

Exponential Linear Unit (ELU) is defined as $f(a, x) = \begin{cases} \alpha(e^x - 1), & \text{if} \quad x \leq 0 \\ x, & \text{if} \quad x > 0 \end{cases}$ for $\alpha > 0$.

LeakyReLU is defined as $f(a, x) = \begin{cases} ax, & \text{if} \quad x \leq 0 \\ x, & \text{if} \quad x > 0 \end{cases}$ for $\alpha > 0$.