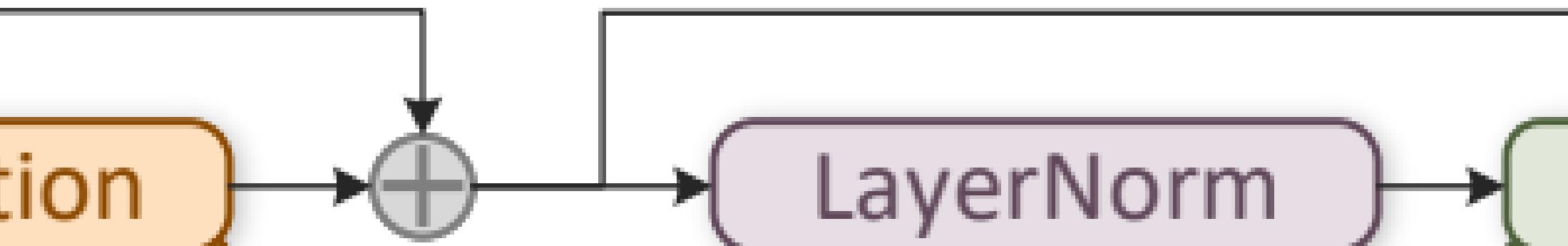


Non-Linear Scalar Product

$$k = 1 / \sqrt{\sum (x - \mu)^2}$$
$$k \circ (x - \mu)$$



Matmul Product

$$Q \cdot K^T$$

Non-Linear Softmax

$$e^x$$

Non-Linear Scalar Product

$$\frac{1}{\sum e^{x_i}} \circ e^x$$

Non-Linear GELU

$$GELU(x) = \begin{cases} x, & x \geq 0 \\ \frac{1}{2} x \left(1 + \operatorname{erf} \left(\frac{x}{\sqrt{2}} \right) \right), & x < 0 \end{cases}$$