The Transformer Architecture

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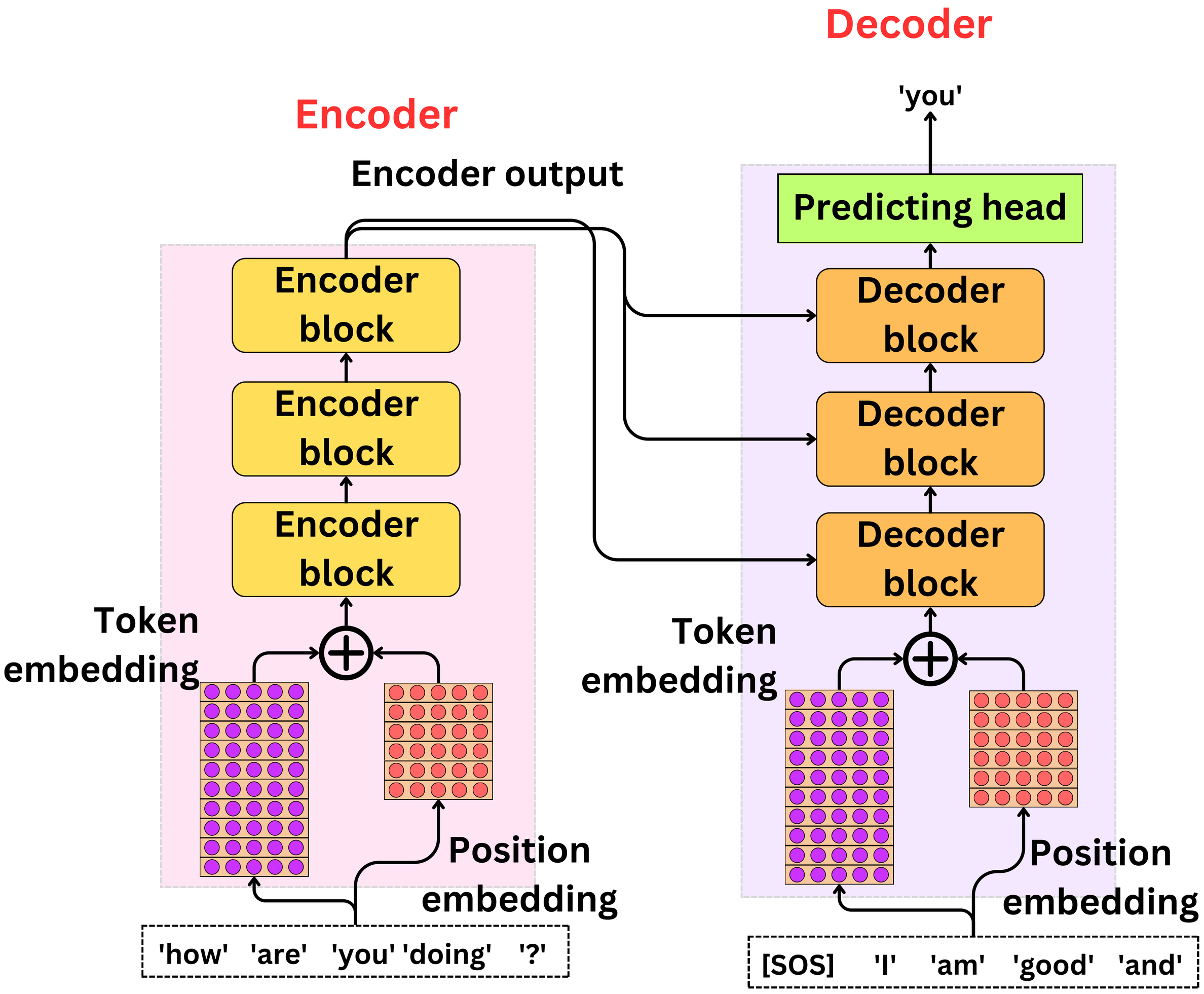

The Overall Architecture

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The Transformer Architecture

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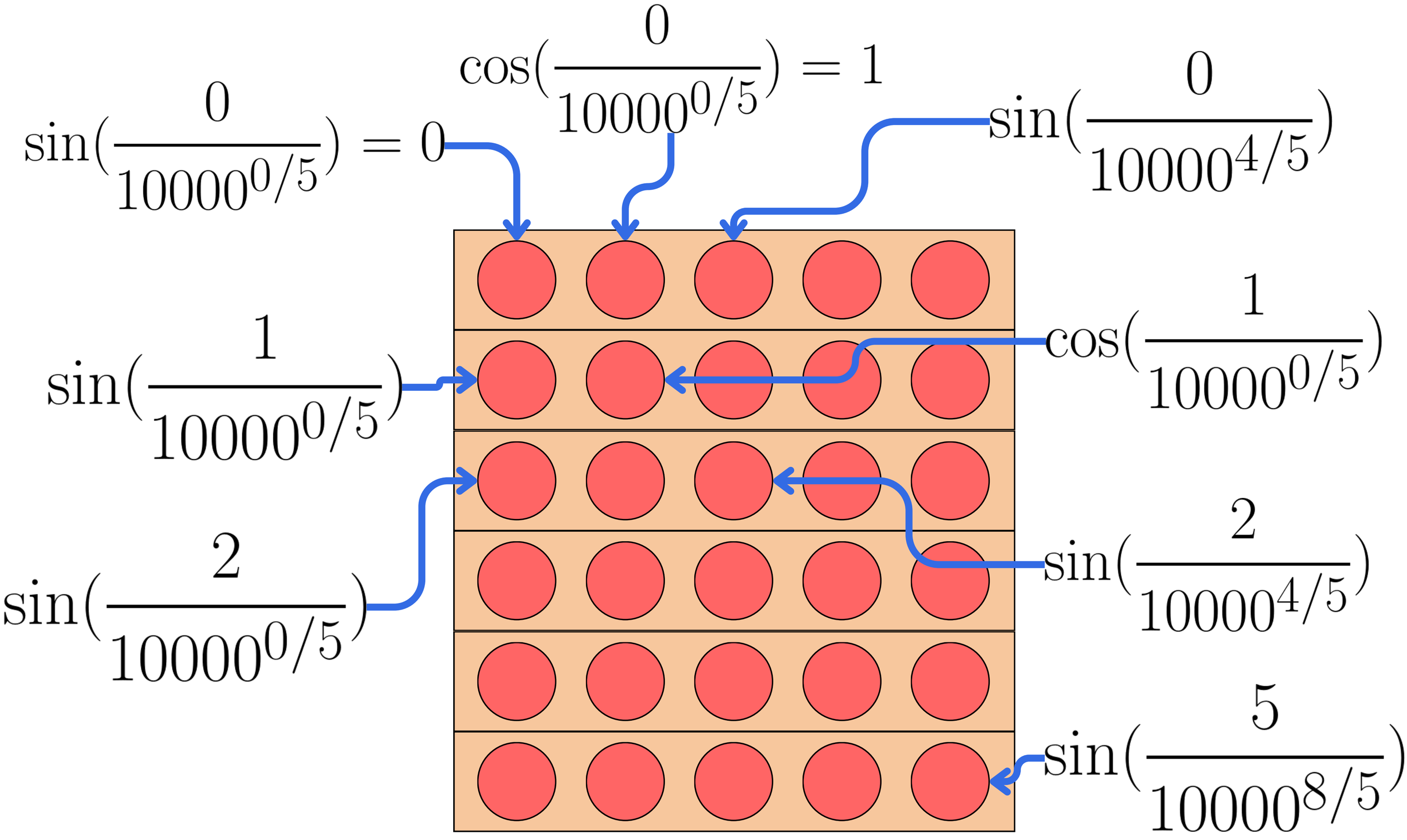
$$PE_{(pos,2i)} = sin(pos/10000^{2i/d_{\text{model}}}) \quad \textbf{even i}$$

$$PE_{(pos,2i+1)} = cos(pos/10000^{2i/d_{\text{model}}}) \quad \textbf{odd i}$$



The Position Embedding

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The Transformer Architecture

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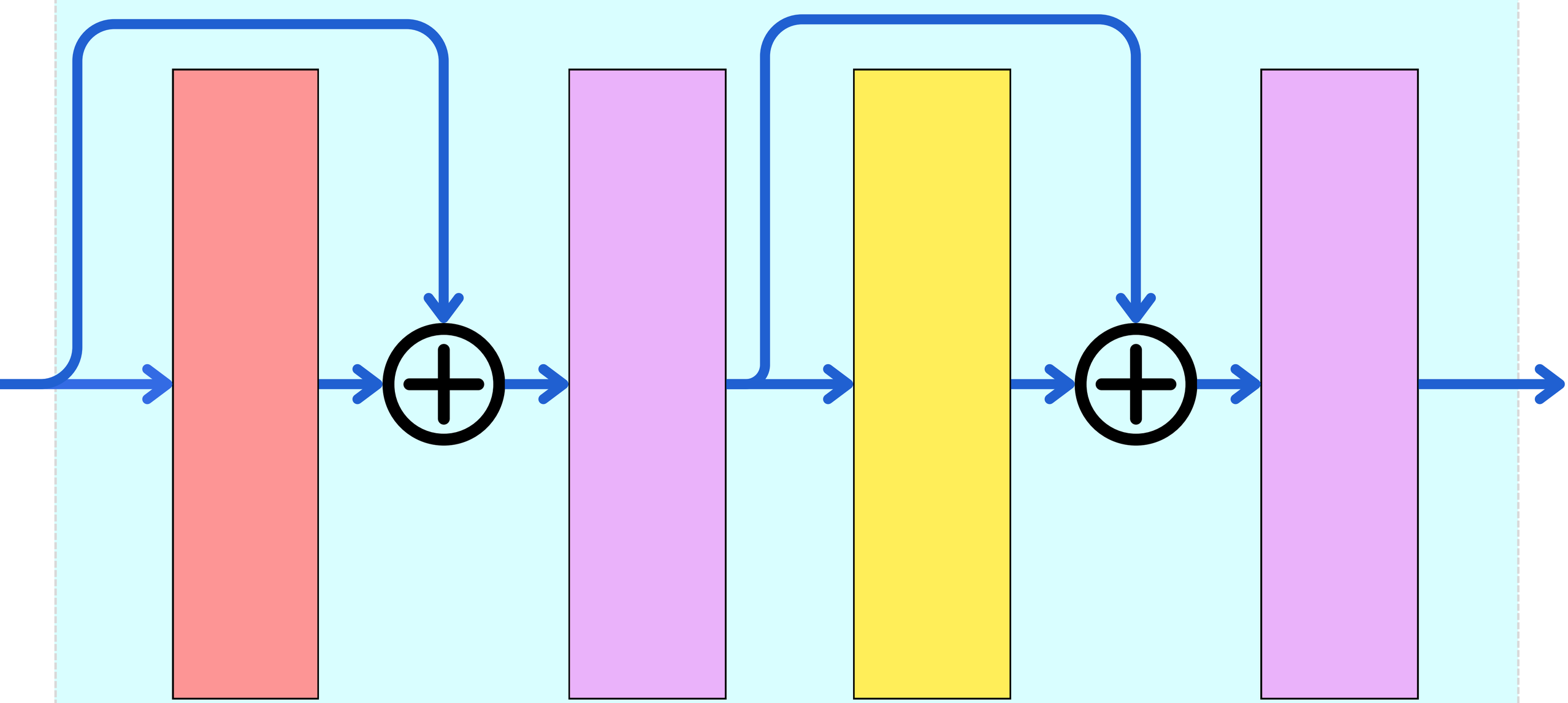
Encoder block



Multihead Attention Layer

Layer Normalization

Feed Forward network

Layer Normalization

The Encoder Block

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The Transformer Architecture

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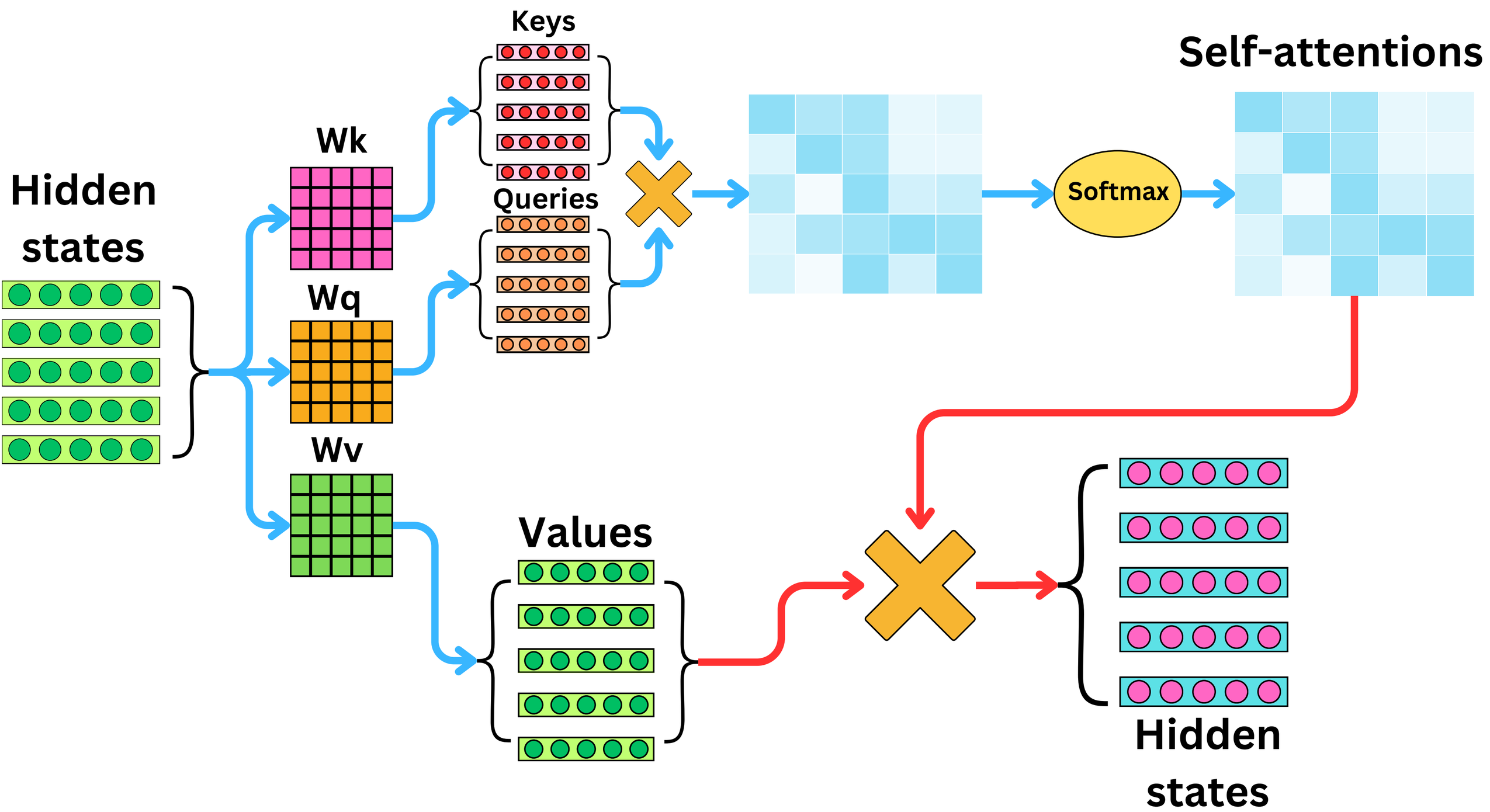

The Self-Attention Layer

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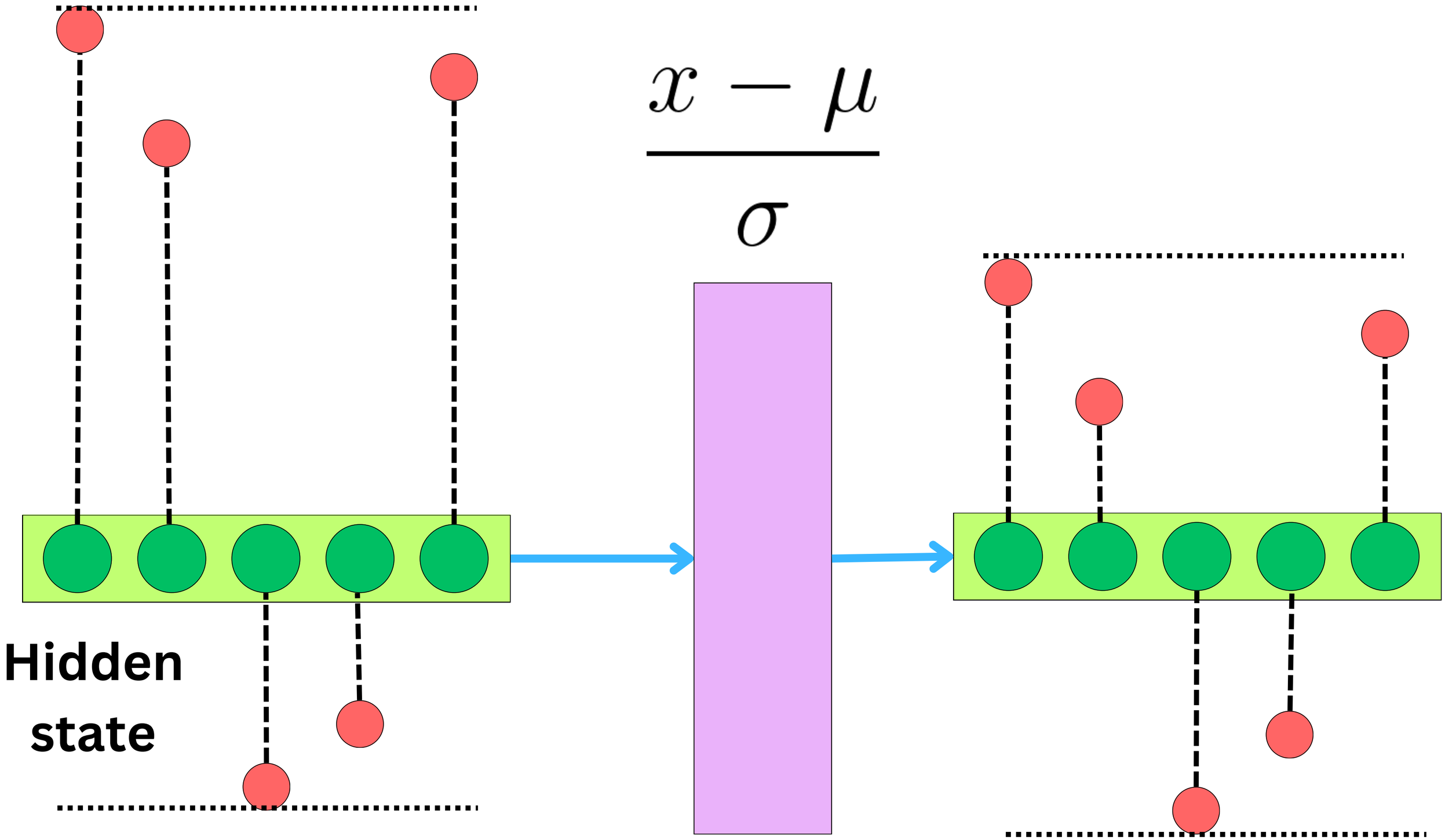

The Layer Normalization

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The Transformer Architecture

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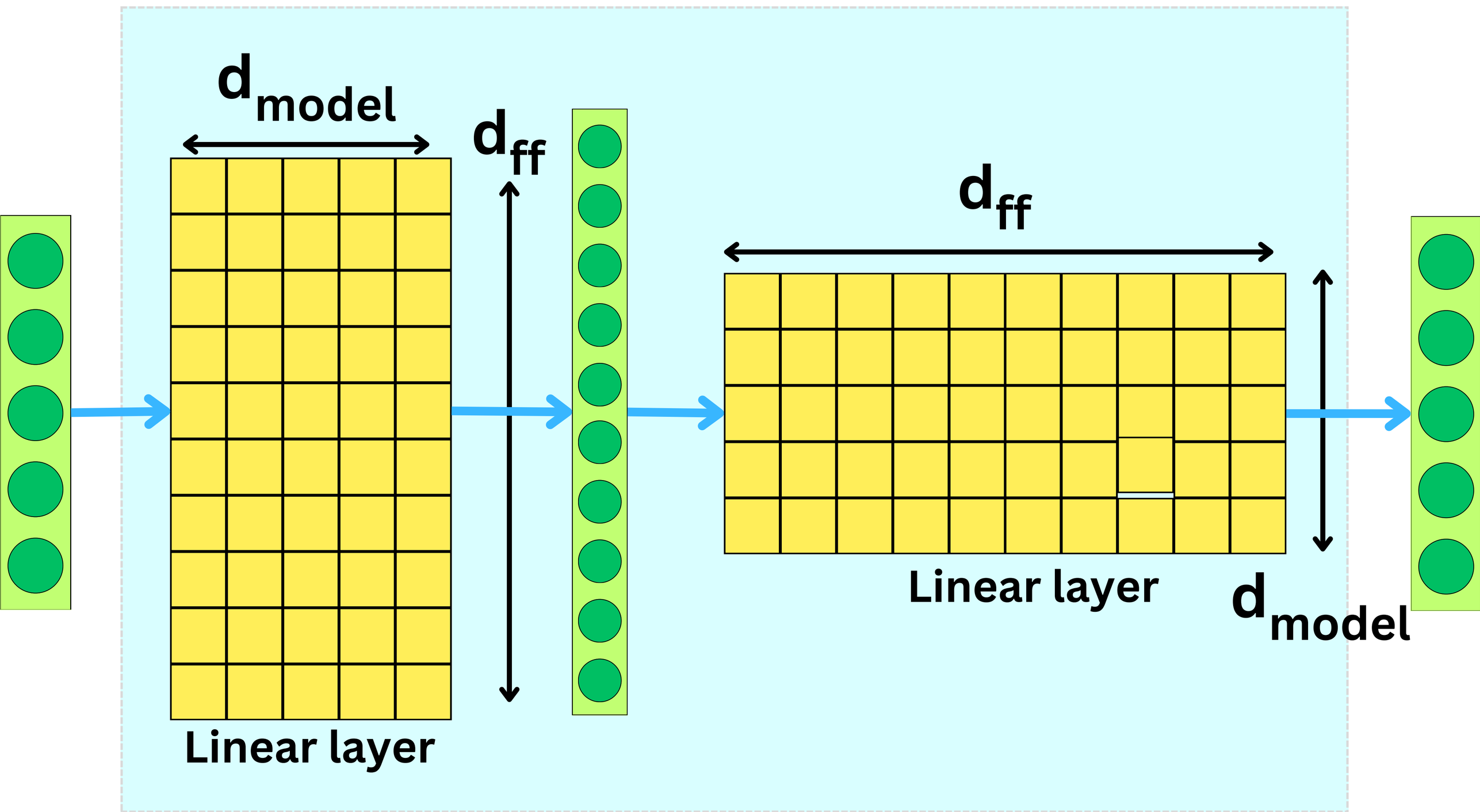

The Position-wise Feed-forward Network

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The Transformer Architecture

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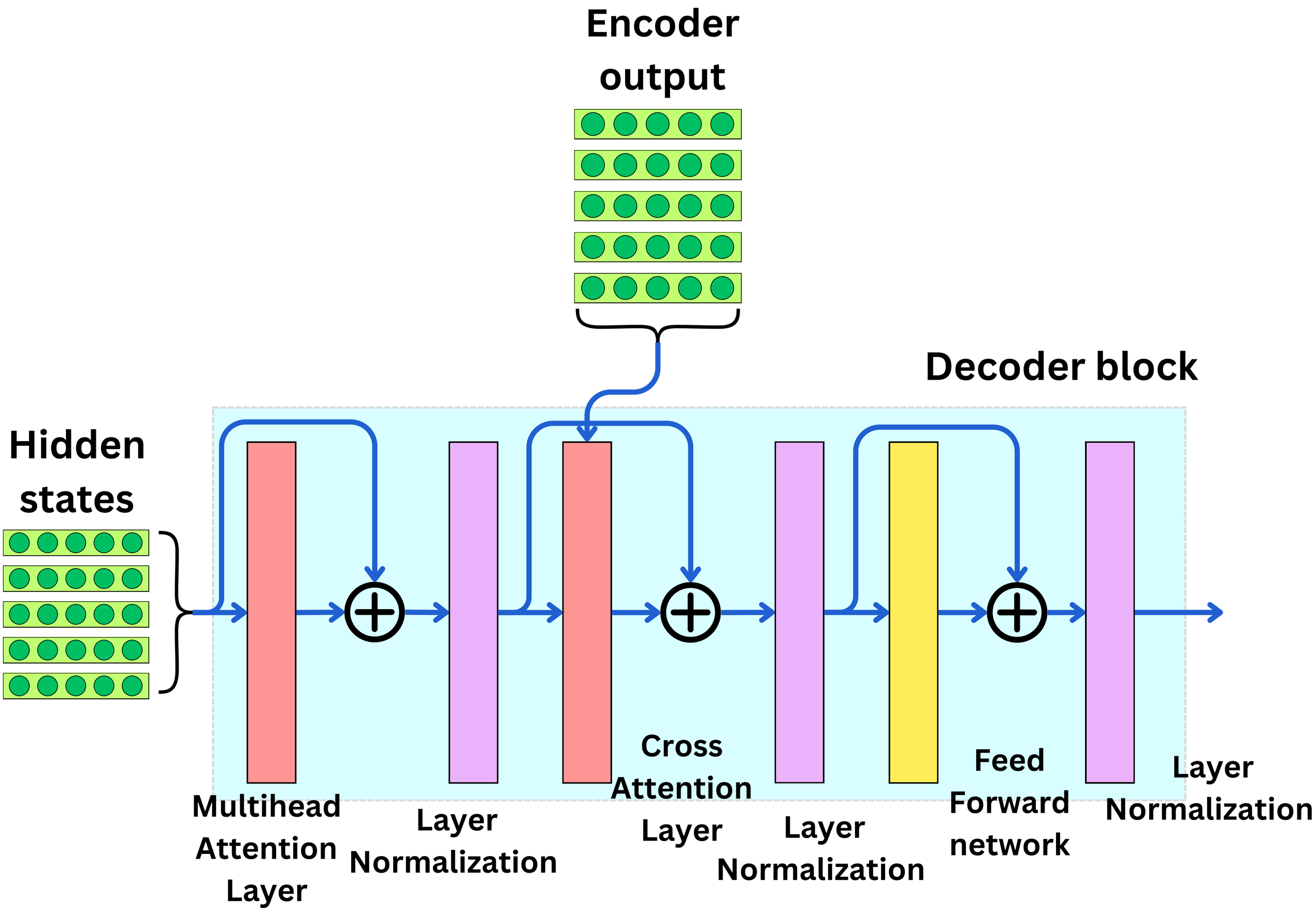

The Decoder Block

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The Transformer Architecture

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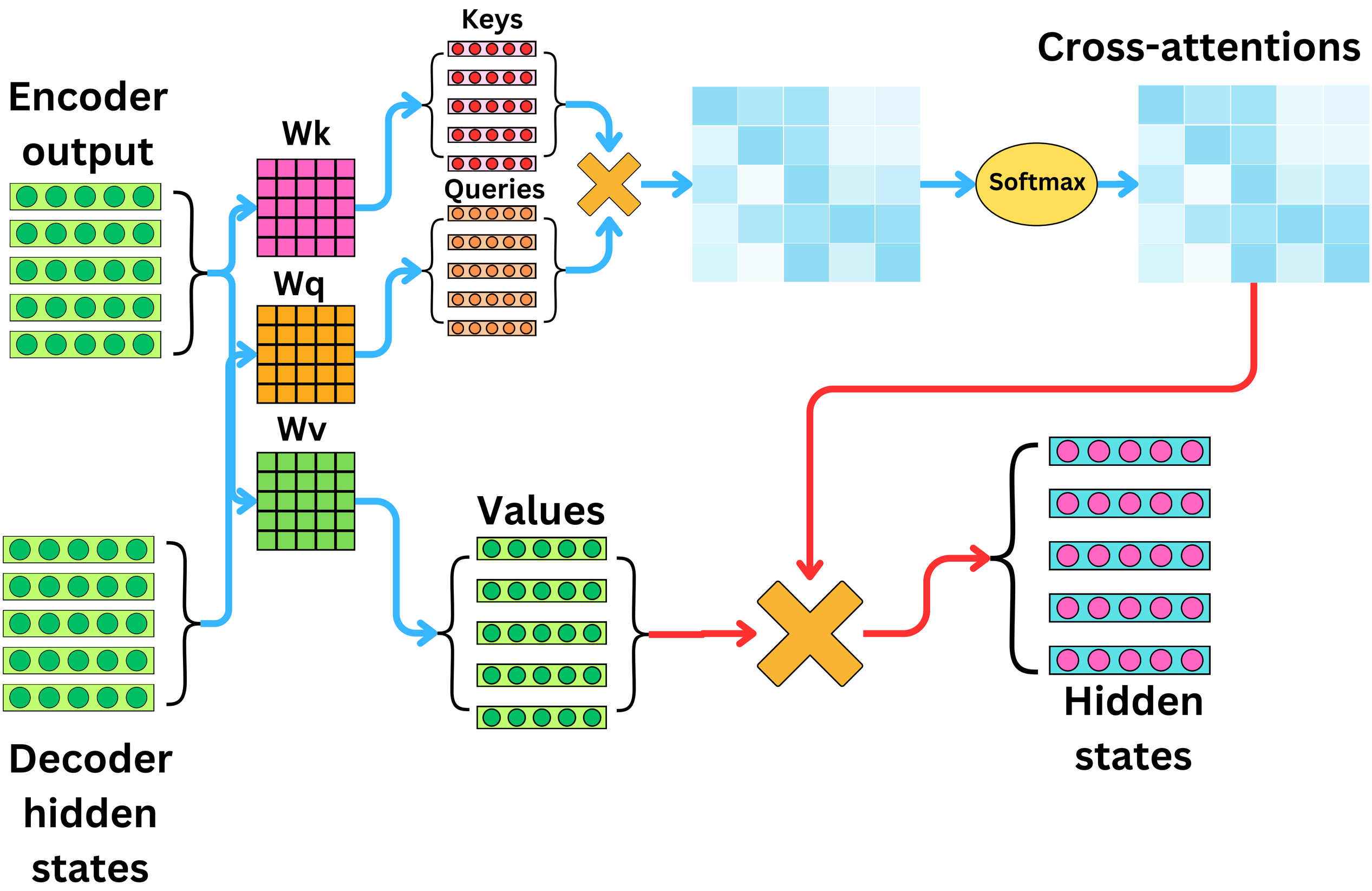

The Cross-Attention Layer

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The Transformer Architecture

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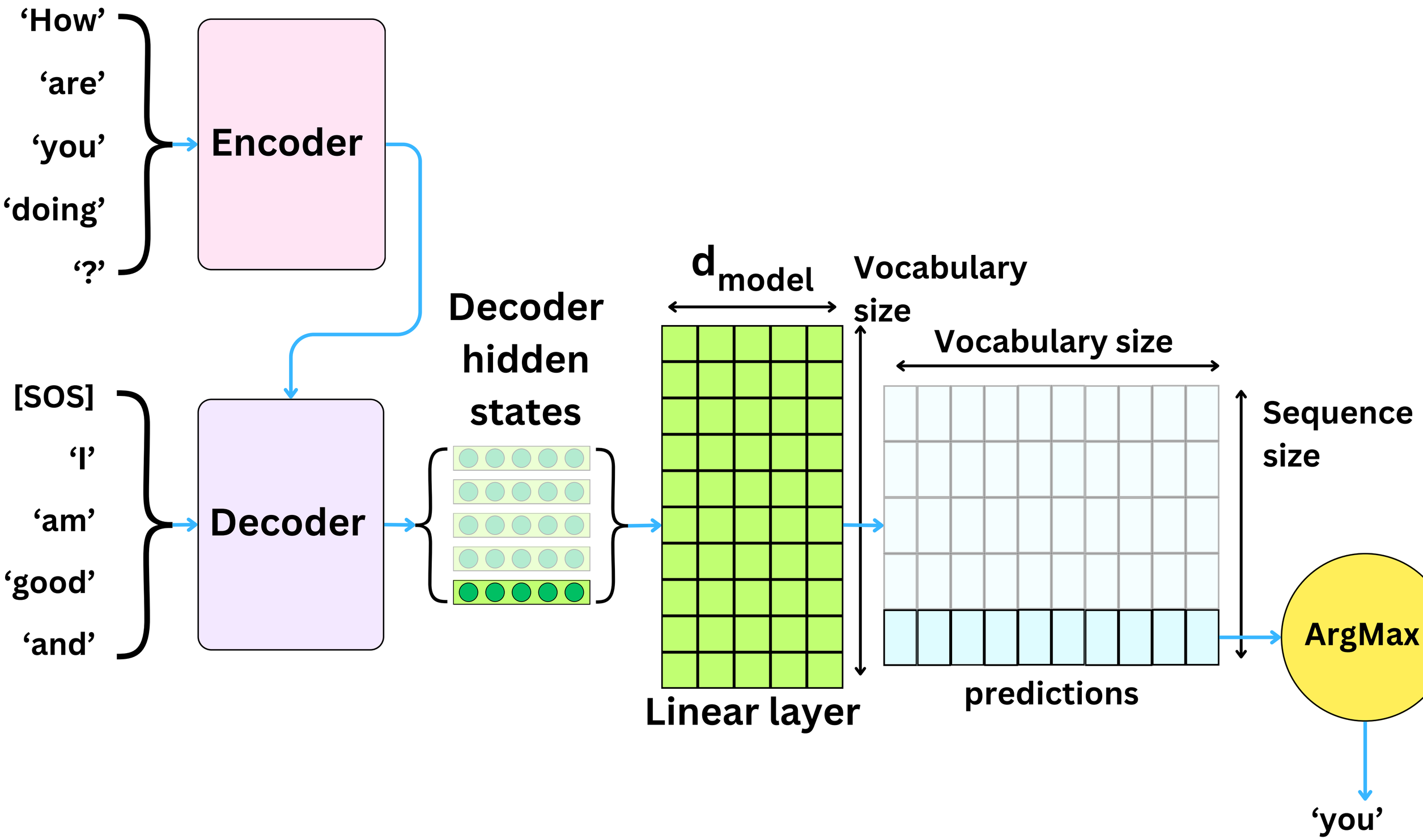

The Predicting Head

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