

The background is a solid dark blue. It is decorated with several abstract geometric shapes. In the top left, there is a long, thin, orange-to-brown gradient rectangle. To its right, there are several dark blue triangles and a larger dark blue diamond. Further right, there is a teal-to-blue gradient rectangle. On the far right, there is a blue-to-purple gradient rectangle. The shapes are scattered across the top half of the image.

# Deep Dive Module 4

# Deep Dive

## RNNs

- ❑ Mathematical understanding of RNN and its variants  
<https://www.geeksforgeeks.org/mathematical-understanding-of-rnn-and-its-variants/>
- ❑ Simplified Math behind Complex LSTM equations  
<https://medium.com/@leenabora1/simplified-math-behind-complex-lstm-equations-66cff0d52d78>
- ❑ Understanding GRU Networks  
<https://towardsdatascience.com/understanding-gru-networks-2ef37df6c9be>

## RNN variants

- ❑ Attention Mechanism in Deep Learning  
<https://www.analyticsvidhya.com/blog/2019/11/comprehensive-guide-attention-mechanism-deep-learning/>

## Advanced NLP Architectures – Transformers

- ❑ Dissecting BERT – a 3 part blog <https://medium.com/dissecting-bert>

# شكراً لكم

## Thank you



**SDAIA**

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