

## TEKLRN

### TENSORFLOW LEVEL 21

1. Transformer model for language understanding
  - Setup input pipeline
  - Positional encoding
  - Masking
2. Scaled dot product attention
3. Multi-head attention
4. Point wise feed forward network
5. Encoder and decoder
  - Encoder layer
  - Decoder layer
  - Encoder
  - Decoder
6. Create the Transformer
7. Set hyperparameters
8. Optimizer
  - Loss and metrics
9. Training and checkpointing
  - Evaluate
10. Fine-tuning a BERT model
  - Setup
  - Imports
  - Resources
11. The data
  - Get the dataset from TensorFlow Datasets
  - The BERT tokenizer
  - Tokenize a sentence:
  - Preprocess the data
  - Encode the sentences
12. Mask and input type
13. Put it all together
14. The model

- Build the model
- Restore the encoder weights

15. Set up the optimizer

16. Train the model

17. Save the model

18. Re-encoding a large dataset

19. Create `tf.data.Dataset` for training and evaluation

20. TFModels BERT on TFHub

21. Low level model building

22. Restore the weights:

23. Test run it:

24. Optimizers and schedules