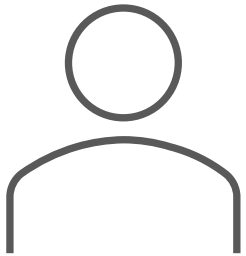
Deep Learning
Natural Language Processing
101

- Course Overview -

정상근

"Deep Learning NLP 101"



Understanding Neural Network Development

Understanding & Implementation Attention

Understanding & Implementation Transformer

BERT **GPT**

Implementation & Improvement NLP modules

Sentence Classification

Token Classification

Sentence Generation

HuggingFace Models Manipulation

"Deep Learning NLP 101"

Neural Network-Basic	Attention 101	Transformer 101	NLP 101
✓ Tensor Operations ✓ NN design pattern ✓ PyTorch-Lightning	✓ Seq2Seq ✓ Attention	✓ Transformer Overview ✓ QKV pattern ✓ Multihead Attention ✓ Self- and Cross-Attention ✓ Scaling, Normalization, Residual connection	✓ NLP Problems Overview ✓ N21 problem ✓ N2N problem ✓ N2M problem ✓ Error Analysis ✓ Auto-Experiments
[Code Practice] ✓ Tensor Operations (PyTorch) ✓ PyTorch-Lightning (Hello World)	**[Code Practice]** ✓ Number Problem ✓ Additive Attention ✓ Dot-Product Attention	**[Code Practice]** ✓ QKV Attention ✓ Multi-head attention ✓ Encoder ✓ Encoder (Multi-layer) ✓ Encoder only - BERT ✓ Original Transformer (Sorting Problem) ✓ Decoder only – GPT2	**[Code Practice]** ✓ (N21) Sentiment Analysis ✓ (N2N) Named Entity Recognition ✓ (N2M) Translation ✓ Error Analysis ✓ Auto-Experiments (Sweep)