

Neural Ranking Models for Search

Information retrieval consists of two phases. The first phase tries to retrieve more number of relevant documents for a given query whereas the second phase tries to rank the retrieved documents so that highly relevant documents appear on the top of the list. In this project, we try to develop a neural ranking models that comply well with the IR related axioms.

An ideal candidate should have

1. Strong background in python and deep learning
2. motivation behind learning and exploring the data
3. knowledge about basic IR concepts

Interested students are encouraged to email to Dr. Koustav Rudra at [rudra@l3s\(dot\)de](mailto:rudra@l3s.de) for scheduling a meeting.

References:

1. Deeper Text Understanding for IR with Contextual Neural Language Modeling
[<https://dl.acm.org/doi/10.1145/3331184.3331303>]
2. CEDR: Contextualized Embeddings for Document Ranking
[<https://arxiv.org/abs/1904.07094>]
3. Diagnosing BERT with Retrieval Heuristics
[http://www.abcamara.com/documents/publications/ECIR_2020.pdf]