

## **Thesis proposal review**

### **Ahmad Aghaebrahimian: Hybrid Deep Open-Domain Question Answering**

#### **Content**

The thesis proposal of Ahmad Aghaebrahimian belongs to the research area of question answering and presents an ongoing work focused on exploiting deep learning methods on the open-domain question answering problem.

The text is written in English, spanning 15 pages in total (including a rich bibliography). The text is structured into 4 main sections. After an introduction, the author reviews related work and various architectures of question-answering systems in Section 1. Section 2 presents the hybrid architecture adopted by the author, it is a novel approach aiming at combining free-text and knowledge-base approaches. Section 3 summarizes the experiments performed by the author and Section 4 concludes the thesis proposal with an overview of future work.

#### **Evaluation**

The text is well written and readable with occasional grammatical errors and typos. The review of related work and overview of the main approaches to question answering seems rich and complete (the bibliography includes more than 80 referred papers). The technical parts (Section 2 and 3) are quite brief but the high level description provides a fair understanding of the author's approach. However, some technical details should be better explained, e.g. in Section 3.2: If the property detection problem is solved as statistical classification, what are the classes? How many of them are they? How the models are trained? How the n-best lists are constructed? What is meant by the sentence: "Since the boundary of tokens in question is not given [...] the task is quite challenging."

A major issue that is not clear to me is how the author wants to combine the free-text and knowledge-based results in the hybrid approach if both the components provide some results.

#### **Conclusion**

The thesis proposal of Ahmad Aghaebrahimian is a reasonable piece of work, some of the experiments were already published at international conferences and workshops, one paper is under review. I consider this research topic and the adopted approach as sufficient for the author's dissertation.