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Title: Hy-NLI: a Hybrid state-of-the-art Natural Language Inference system

Abstract: Natural Language Inference (NLI), the task of determining whether a premise sentence entails, contradicts or is neutral with respect to a hypothesis sentence, has recently seen tremendous advances. The growing availability of increasingly large datasets has enabled the training of massive deep models, pushing the state-of-the-art to human performance. Although these models' robustness makes them suitable for capturing lexical semantics and world-knowledge, recent research has exposed their generalization and compositionality difficulties. Such models struggle to deal with complex linguistic phenomena such as negation, modals, implicatives and factives, conditionals, etc. These are phenomena to which symbolic/structural approaches are more suitable. Thus, the goal of this thesis is to implement a hybrid NLI system that combines the strengths of a symbolic and a deep-learning approach and delivers state-of-the-art results for more and less complex datasets. This talk will focus on the implementation of the symbolic component. The symbolic component is based on the output of a semantic parser, also implemented as part of this thesis; this talk will thus first briefly present the representation produced by the parser.