Incorporating Compositionality and Morphology into End-to-End Models

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Abstract

Many neural end-to-end systems today do not rely on syntactic parse trees, as much of the information that parse trees provide is encoded in the parameters of pretrained models. Lessons learned from parsing technologies and from taking a multilingual perspective, however, are still relevant even for end-to-end models.

This talk will describe work that relies on compositionality in semantic parsing and in reading comprehension requiring numerical reasoning. We'll then describe a new dataset that requires advances in multilingual modeling, and some approaches designed to better model morphology than off-the-shelf subword models that make some progress on these challenges.

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