NLP Write-Up Spare

Research here shows a comparison between Long Short-term Memory (LSTMs), LSTMs with Aspect Embedding (AE-LSTM), Attention-based LSTMs (AT-LSTM) and attention-based LSTMs with aspect embedding (ATAE-LSTM). LSTMs have a strong ability in handling sequential data (and remembering patterns with phrases and words) could suggest it may be good at this. Similarly, to our proceedings, we take inspiration from the use of baseline model comparison and qualitative analysis into how different types of LSTMs break down sentences based on aspects and polarity. TD-LSTMs (target-dependent LSTMs) work by adding a target embedding vector to each word in an input sentence, allowing the model to capture sentiment. AE-LSTMs use an auto-encoder architecture to learn a compressed representation of the input data before decoding it to generate an output sequence. Autoencoders reduce noise by compressing input sequences, so that the model can capture long-term dependencies more efficiently. AE-LSTMs outperformed TD-LSTMs in this paper for two datasets (polarity classification of restaurants and laptops).