Nugget Proposal Network for Chinese Event Detection

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Motivation
- Deep Learning methods have shown significant progress in event detection
- The SOTA models transform event detection into a word-wise classification task
- Suffer from word-trigger mismatch in languages without natural word delimiters

Nugget Proposal Networks
- Directly propose entire trigger nuggets at each character regardless of word-boundary
- Modeling and exploiting the compositional structure of triggers in Chinese
- Using a hybrid representation of characters and words

Hybrid Char-Word Representation Learning

Hybrid Representation Learning
- First learn a character-level and a word-level representation respectively
- Three hybrid methods: Concat, General, Task-specific

Trigger Nugget Generator
- Predict entire trigger nugget at each character
- Using a redundant prediction strategy to deal with conflicts between predictions

Experiments
- Significant improvements on Both ACE2005 and KBP2017 datasets