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Knowledge-oriented Convolutional Neural Network for Causal
Relation Extraction from Natural Language Texts

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Highlights

- Knowledge-oriented convolutional neural network (K-CNN) performs better than CNN.
- Word filters capture linguistic clues of causal relation and alleviate overfitting.
- Word filter selection and clustering improve the performance of K-CNN.
- Semantic features improve precision and recall for complex causal relations.
- Combination of knowledge and data improves the performance of deep learning model.

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