We introduced a novel semantic feature extraction method. Three different models were applied and compared based on these features, where C4.5 outperformed both rule-based algorithm and SVM. Evaluation result showed a good accuracy of 72.0% in BC subtask and 61.9% in MC subtask.

### Solution - Semantic Feature Extraction

**ERE**
- Entity
- Relation
- Entity

**EAA**
- Entity
- Attribute Value
- Attribute Name

**PAA**
- Predicate
- Adverbial Value
- Adverbial Name

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**Challenges in NTCIR RITE Task**

Note: Large ratio of common words/syntactic structures doesn’t guarantee the same semantic meaning. Traditional features based on lexical words, synonyms or Semantic Role Labeling met trouble when dealing with these non-entailment cases.

### System Architecture

**RITE Formal Run**

<table>
<thead>
<tr>
<th>Sub-Task</th>
<th>Accuracy</th>
<th>Team Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC</td>
<td>72.0%</td>
<td>7/12</td>
</tr>
<tr>
<td>MC</td>
<td>61.9%</td>
<td>3/11</td>
</tr>
</tbody>
</table>

### Conclusion

We introduced a novel semantic feature extraction method. Three different models were applied and compared based on these features, where C4.5 outperform both rule-based algorithm and SVM. Evaluation result showed a good accuracy of 72.0% in BC subtask and 61.9% in MC subtask.