2018 Fall Semester Summary

Zoey
Research Projects

• Event Schema Induction and Profiling with Minimal Supervision
  • Action centered schema (typical actions, relations), close to the definition of script knowledge
    • Core tasks are salient event discovery and synonymous pattern grouping.
    • Unsuccessful attempts of jointly discovering salient events & clustering documents, Multiview clustering of event patterns, retrofitting patterns with extracted value constraints, identifying reliable patterns for profiling etc.
  • Submitting to NAACL 2019
  • Extension: flexible event forms (possible missing arguments), temporal relations between events

• Entity centered schema, closer to the task of slot filling (Ongoing)
  • Identify key actors by their names, semantic roles and surrounding keywords
  • Can utilize implicit coreference information
Research Projects

• Query Expansion for Open-Ended Queries (Ongoing)
  • Research problem that emerged from interactions with IAI
  • Open-ended queries ≠ open question answering, for example “Russian troll activity during Trump election”
    • Requires many supporting documents to show the full picture
    • Spans multiple news stories
  • Entity expansion by using relevance feedback to guide knowledge base exploration
    • Knowledge base path scoring + entity scoring
Collaborations

- HIN Consolidation w/ Jingbo, Yuning
- Relation Learning on Diffusion Networks w/ Carl
Work

• IAI/ DTRA project
  • Biweekly meetings & monthly progress reports
  • Building an event processing framework
  • Offline section: Query expansion, document classification, schema induction
  • Still a long way to go