

Stanford Temporal Tagger: SUTime

PA164 – MACHINE LEARNING AND NATURAL
LANGUAGE

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Temporal Tagging

- Temporal expressions:
 - Time: *December 19, 2012; now; the twenties*
 - Duration: *several days, 6 to 8 years*
 - Interval: *Monday to Friday*
 - Combination thereof: *an hour on Wednesday*
- Problems encountered
 - Tagging of explicit temporal expressions
 - Event ordering
 - Ambiguity resolution (*last Monday, spring*)
- TimeML
 - <TIMEX3>

SUTime tagging process

- Regular expressions over tokens:
 - Tokenization
 - Regular expression mapping
 - Simple temporal objects
- Composition
 - Complex temporal objects
 - Removing nested temporal expressions
- Finale
 - Ambiguity resolution
 - TIMEX3 annotation
 - Output

Conclusion

- SUTime limits – Language specific problems:
 - Ambiguity resolution (*fall - fall*)
 - Named entity resolution (*Halloween*)
 - Temporal range recognition
- Other systems
 - GUTime
 - HeidelTime
 - TRIPS/TRIOS
- <http://nlp.stanford.edu/software/sutime.shtml>

Thank You
and
good luck during the exam