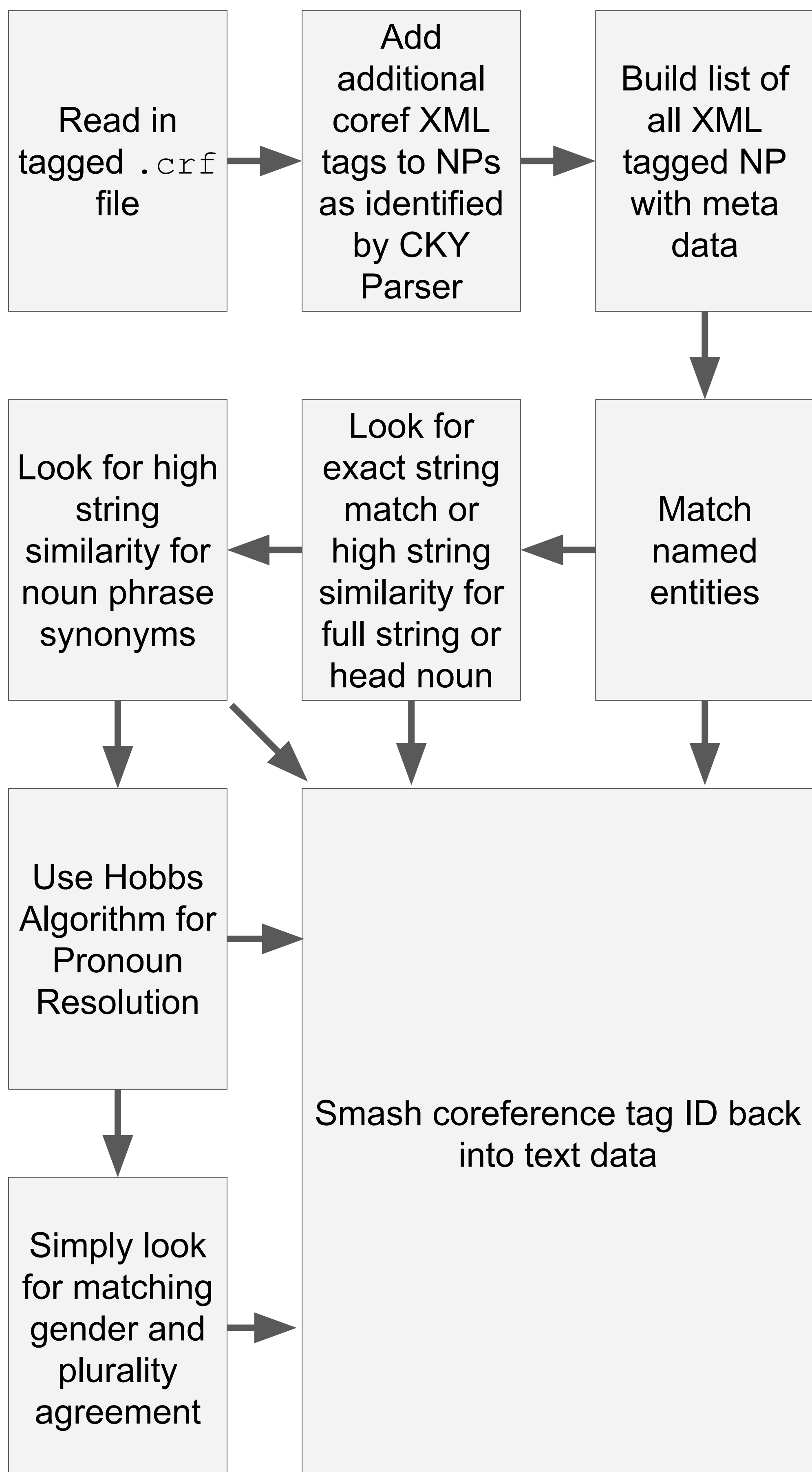# Friendly Kangaroos
Carolina Nobre, Sam Olds

System Design and Components

- Used Python
- Hobbs Algorithm for Pronoun Resolution
- String Matching
- WordNet Synonym matching
- CKY Tagging
- Multithreaded file processing

Read in tagged `.crf` file	Add additional coref XML tags to NPs as identified by CKY Parser	Build list of all XML tagged NP with meta data
Look for high string similarity for noun phrase synonyms	Look for exact string match or high string similarity for full string or head noun	Match named entities
Use Hobbs Algorithm for Pronoun Resolution	Smash coreference tag ID back into text data	
Simply look for matching gender and plurality agreement		

External Resources

- NLTK (http://www.nltk.org)
- CKY Tagger (https://github.com/emilmont/pyStatParser)
- Python's XML Parser (Etree)

Performance

- Initial Eval: 0.2641
- Test Set #2:   0.4626
- Test Set #3:   0.3966

Emphasis / Originality

- String Matching

Team Member Contributions

Carolina
- Parse input text and produce output in correct format.
- Named Entity Recognition
- String Matching
- Gender and Plurality Agreement
- Synonym Matching

Sam
- Additional XML tagging
- Pronoun Resolution
- Additional Text Parsing and Coreference ID Tagging
- Asynchronous file processing

Successes

- String Matching
- String Similarity
- Sentence Tree Parsing

Regrets

- Spent time doing pronoun resolution which was not as fruitful as desired
- Would have liked to use more Machine Learning techniques