Appendix B

Maintenance Manual

B.1 System Requirements

The system is designed to run on 64-bit Linux/Ubuntu operating systems. Different components of the system may require up to 15GB RAM, therefore a machine with higher memory is needed.

B.2 Dependencies

The following components need to be installed before the system can run:

- Python 2.7 or higher 2.x version
- Python 3.5 or higher 3.x version
- OpenKE[1] - no need to download this as it comes as a part of the project files
- KnowledgeStream[2] - no need to download this either as it comes as a part of the project files too. However, you will need to download the original KnowledgeStream test data[3] if you intend to use it.
- Stanford CoreNLP[4]
- MongoDB[5]
- Python packages
  - pip and pip3 or easy_install - for installing new packages
  - pandas[6]
  - numpy[7]
  - sklearn[8]
  - requests[9]

[1] https://github.com/thunlp/OpenKE
[2] https://github.com/shiralkarprashant/knowledgestream
[3] http://carl.cs.indiana.edu/data/fact-checking/data.zip
[4] https://stanfordnlp.github.io/CoreNLP/download.html
[5] https://www.mongodb.com/
[6] https://pandas.pydata.org/
[7] http://www.numpy.org/
[8] http://scikit-learn.org/stable/
[9] http://docs.python-requests.org/en/master/

- bs4[10]
- pymongo[11]
- nltk[12]
- pycorenlp[13]
- neuralcoref[14]

B.3 Running the System

In order to run the system, you need to have a number of tools running in the background which the system is dependent on. The steps to start the system are as follows:

1. Start your mongoDB instance with parameters *mongod –nojournal –dbpath /path/to/mongo* replacing */path/to/mongo* with the path where you have installed mongod
2. Navigate to the folder where you have installed CoreNLP. Start the CoreNLP server with the command

   java -mx8g -cp "" edu.stanford.nlp.pipeline.StanfordCoreNLPServer -annotators "tokenize,ssplit,pos,lemma,parse,sentiment" -port 9000 -timeout 30000*
3. Navigate to the main project folder and start the system with *python3 main.py*

[10] https://www.crummy.com/software/BeautifulSoup/
[11] https://api.mongodb.com/python/current/
[12] https://www.nltk.org/
[13] https://github.com/smilli/py-corenlp
[14] https://github.com/huggingface/neuralcoref