Outline: Real time rumor debunking in twitter

September 27, 2016

1 Introduction - (5 pages)

Motivations of rumor debunking system like the one rumor of Obama made the stock down. Twitter is anonymous and the information on twitter spreads faster and wider than the traditional media. So a real time rumor detecting system is helpful.

1.1 Research Questions - (1 - 1.5 pages)

Each of these correspond to a core chapter in the thesis.

- definition of rumor

- general rumors detecting not rumor in some special events

- real time single tweet credibility system

- time series model rumor detecting

1.2 Contributions and Publications - (1 page)

List contributions as solutions to the research questions and the correspoinding publications.

1.3 Outline of Thesis (0.5 page max)

2 Foundations and Technical Background - (20-25 pages)

2.1 Machine learning l (10 page)

Keeping it general and present an overview rather than details.

2.1.1 decision Tree - (3 pages)

- Introduce basic algorithm of DT
- using DT for features' evolution

2.1.2 random decision forest - (3 pages)

- Introduce basic algorithm of RDF

2.1.3 SVM - (3 pages)

- Introduce basic algorithm of SVM

2.1.4 MLP - (3 pages)

- Introduce basic algorithm of MLP

2.2 Time series Model (1 pages)

introduce the series Model

2.3 Spike model

2.3.1 Original Spike Model - (1 pages)

3 data collection (2 pages)

4 single tweet credibility score

4.1 Introduction and Problem statement (3 pages)

4.2 Related Work (0.5 - 1 page)

4.3 feature design (1 page)

4.4 Model selection(1 page)

4.5 result (1 pages)

4.6 feature Evaluation (6 pages)

4.7 Summary

5 Time series Model (3 pages)

5.1 Introduction and Problem statement (2 pages)

5.1.1 why time series

5.1.2 time series feature

5.2 Related Work (1 page)

5.3 evolution of SpikM model

5.4 feature design (1 page)

5.5 Model selection (0.5 page)

5.6 result (1 pages)

5.7 feature Evaluation (6 pages)

5.8 Summary

6 Conclusion - (2-3 pages)

7 Appendix

Queries. Examples from the output of the query optimizer from Phrase querying.