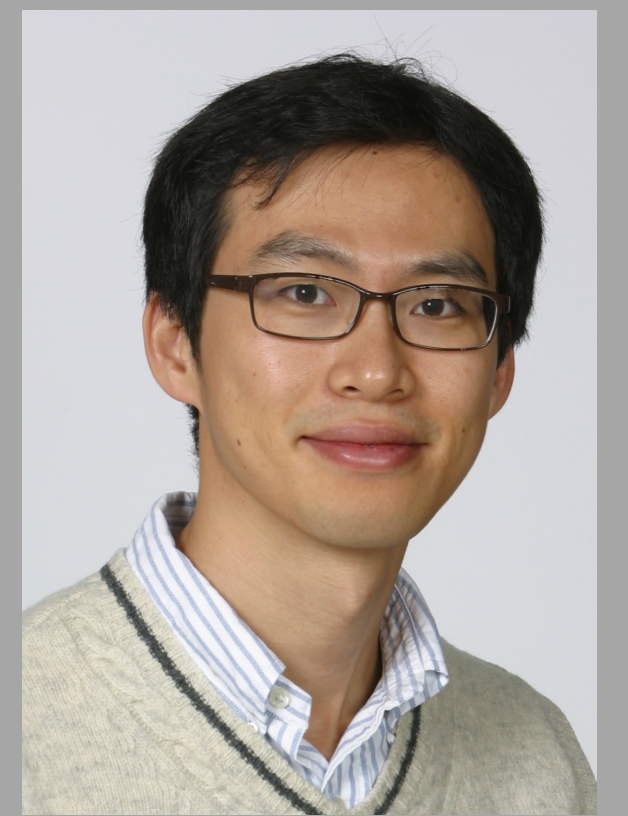


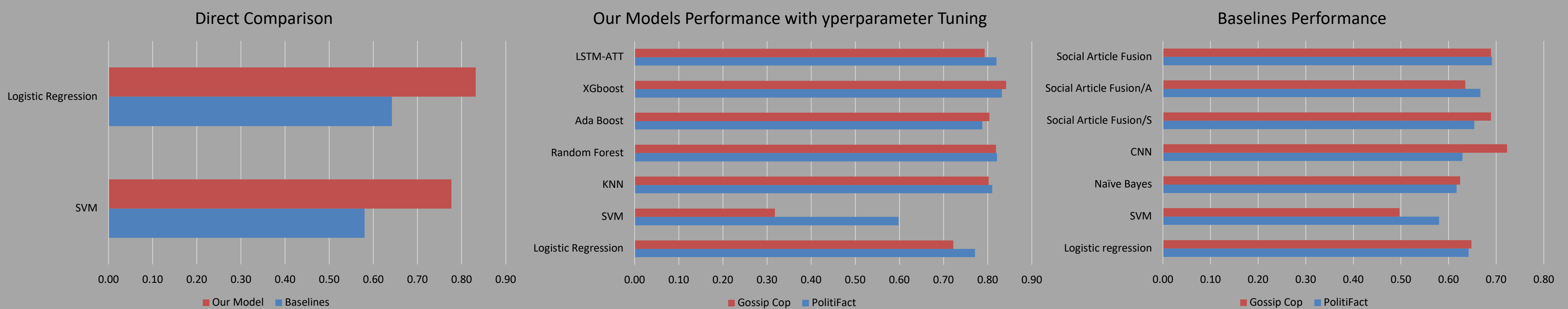
Examination and Detection of Falsified News



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Results



Challenges & Significance

- Fake news are intend to mislead and present fabricate misinformation to the audience in order to damage an entity.
- Fast spreading across social media and influence people’s opinion.
- Since fake news are intentionally written to mislead audience which makes it difficult to detect.

Scientific Impact

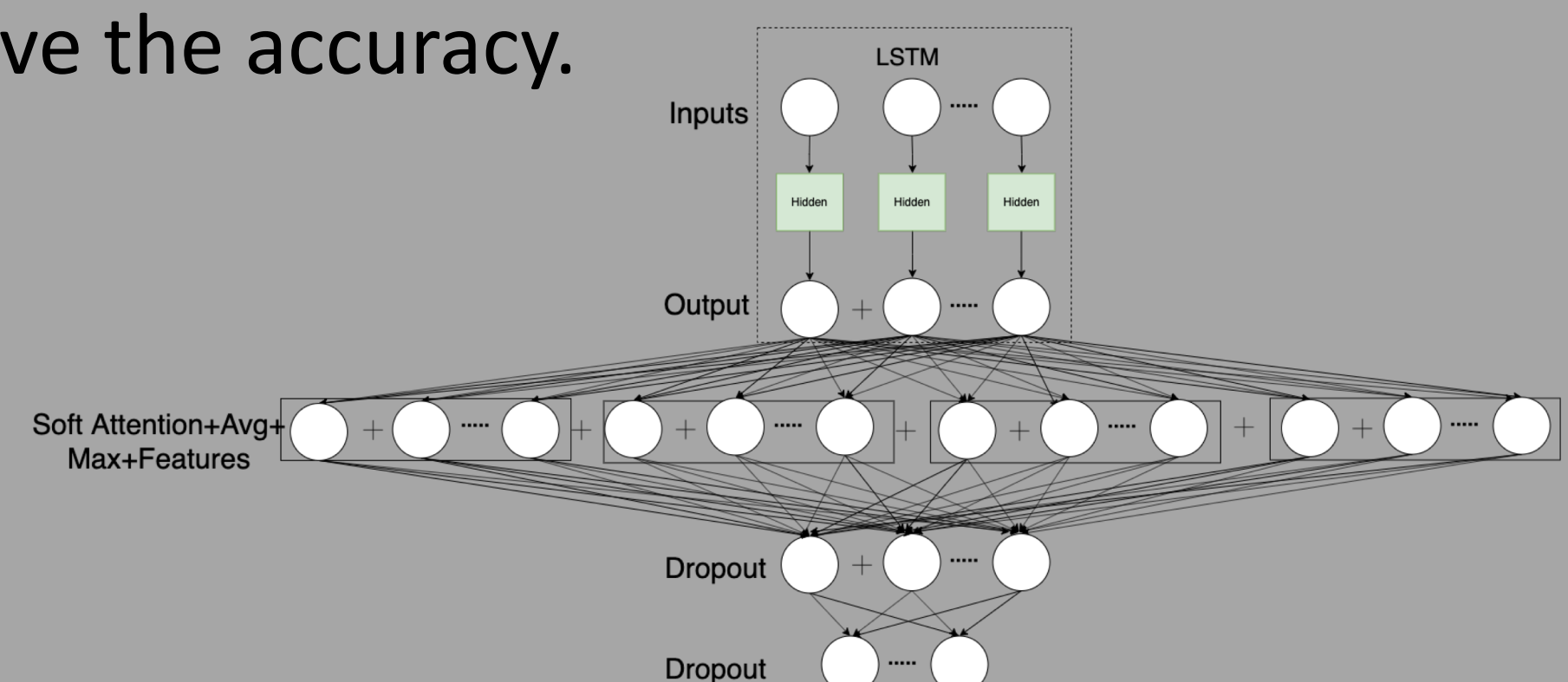
- Exploited the traits of fake news from statistical stand point.
- Develop a well generalized model for fake news detection using FakeNewsNet - an comprehensive dataset.
- As baseline for incorporate with social context and spatial-temporal information.
- Inspiration on using recent deep learning techniques to further improvement.

Solutions



- Experiment on 134 hand select features
 - Count Features (26)
 - Sentiment Features (8)
 - TFIDF-NMF Features (100)
- Develop several basic to advance machine learning models and contest against with baseline from FakeNewsNet¹

- Propose a long short term memory neural network with attention mechanism to further improve the accuracy.



Society Impact

- Help social media platform to identify the authenticity of the news and early stop the spreading of fake news.

Conclusion

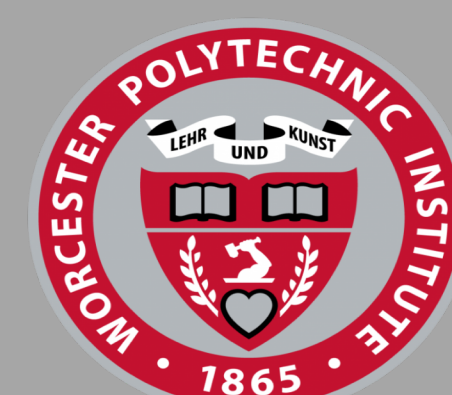
- Achieved 16.4 % and 13.1% higher accuracy in comparison to FakeNewsNet¹'s best model using PolitiFact and Gossip Cop
- Recommend future research to include social content to aid in early fake news detection and prevention

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Reference

1. K. Shu, A. Sliva, S. Wang, J. Tang, and H. Liu, "Fake news detection on social media: A data mining perspective," ACM SIGKDD Explorations Newsletter, vol. 19, no. 1, pp. 22–36, 2017



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