Experiments
Performance Comparison

Model	Contextual	Temporal	Graphical	AUC
Feature SVM				0.5525
CSI($-t$) (without $time(e)$)	✓			0.6678
CSI	✓	✓		0.6911
GCN	✓		✓	0.7064
FANG($-t$) (without $time(e)$)	✓		✓	0.7179
FANG	✓	✓	✓	**0.7518**

- Improvement from multi-relational graph: 0.0386 for GCN, 0.0501 for FANG(-t)

- This demonstrates the effectiveness of our social graph representation.

Discussion
Research Questions

- Aim to answer the following research questions (RQ) to better understand FANG's performance under different scenarios:

  - **RQ1:** Does FANG work well with limited training data?

  - **RQ2:** Does FANG differentiate between fake and real news based on their contrastive engagement temporality?

  - **RQ3:** How effective is FANG's representation learning?