

Introduction

Bi-directional GCN (Bi-GCN)

- Then, the representations of propagation and dispersion **pooled** from the embedding of TD-GCN and BU-GCN are **merged together through full connections** to make the final result.
- Meanwhile, **concatenate the features of the roots** in rumor trees with the hidden features at each GCN layer to **enhance the influences** from the roots of rumors.
- Employ DropEdge (Rong et al. 2019) in the training phase to **avoid over-fitting**.

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Contributions of Bi-directional GCN (Bi-GCN)

- Leverage GCN to detect rumors.
- Proposed Bi-GCN that
 - Not only considers the **causal features of rumor propagation** along relationship chains from top to down
 - But also obtains the **structure features from rumor dispersion** within communities through the bottom-up gathering.
- Concatenate the features of the source post with other posts at each GCN to make a comprehensive use of the information from the root feature.