Preliminaries
DropEdge

- Novel method to reduce over-fitting for GCN-based models (Rong et al. 2019).

- Randomly drops out edges from input graphs to generate different deformed copies with certain rate at each training epoch.

  - This method augments the randomness and the diversity of input data.

- Formally, suppose the total number of edges in the graph $\mathbf{A}$ is N_e, and the dropping rate is p

  - $\mathbf{A}' = \mathbf{A} - \mathbf{A}_{drop}$: adjacency matrix after DropEdge

  - $\mathbf{A}_{drop}$ is constructed using $N_e \times p$ edges randomly sampled from the original edge set.

Methodology
Bi-GCN Rumor Detection Model