original loss:

```
loss = norm * (pos_weight * batch.adj_label * log_max(preds) \
               + (1 - batch.adj_label) * log_max(1 - preds)) * adj_mask_batch
loss = - loss.mean()
```

where

- pos_weight $= \dfrac{|\mathcal{E}^c|}{|\mathcal{E}|} = \dfrac{N^2 - |\mathcal{E}|}{|\mathcal{E}|}$,

- norm $= \dfrac{N^2}{2 \cdot |\mathcal{E}^c|}$,

- .mean() $\Leftrightarrow \cdot \dfrac{1}{N^2}$.

As a result,

- weight on edges: $\dfrac{|\mathcal{E}^c|}{|\mathcal{E}|} \cdot \dfrac{N^2}{2 \cdot |\mathcal{E}^c|} \cdot \dfrac{1}{N^2} = \dfrac{1}{2|\mathcal{E}|}$,

- weight on non-edge: $\dfrac{N^2}{2 \cdot |\mathcal{E}^c|} \cdot \dfrac{1}{N^2} = \dfrac{1}{2|\mathcal{E}^c|}$.

+ Code   + Text