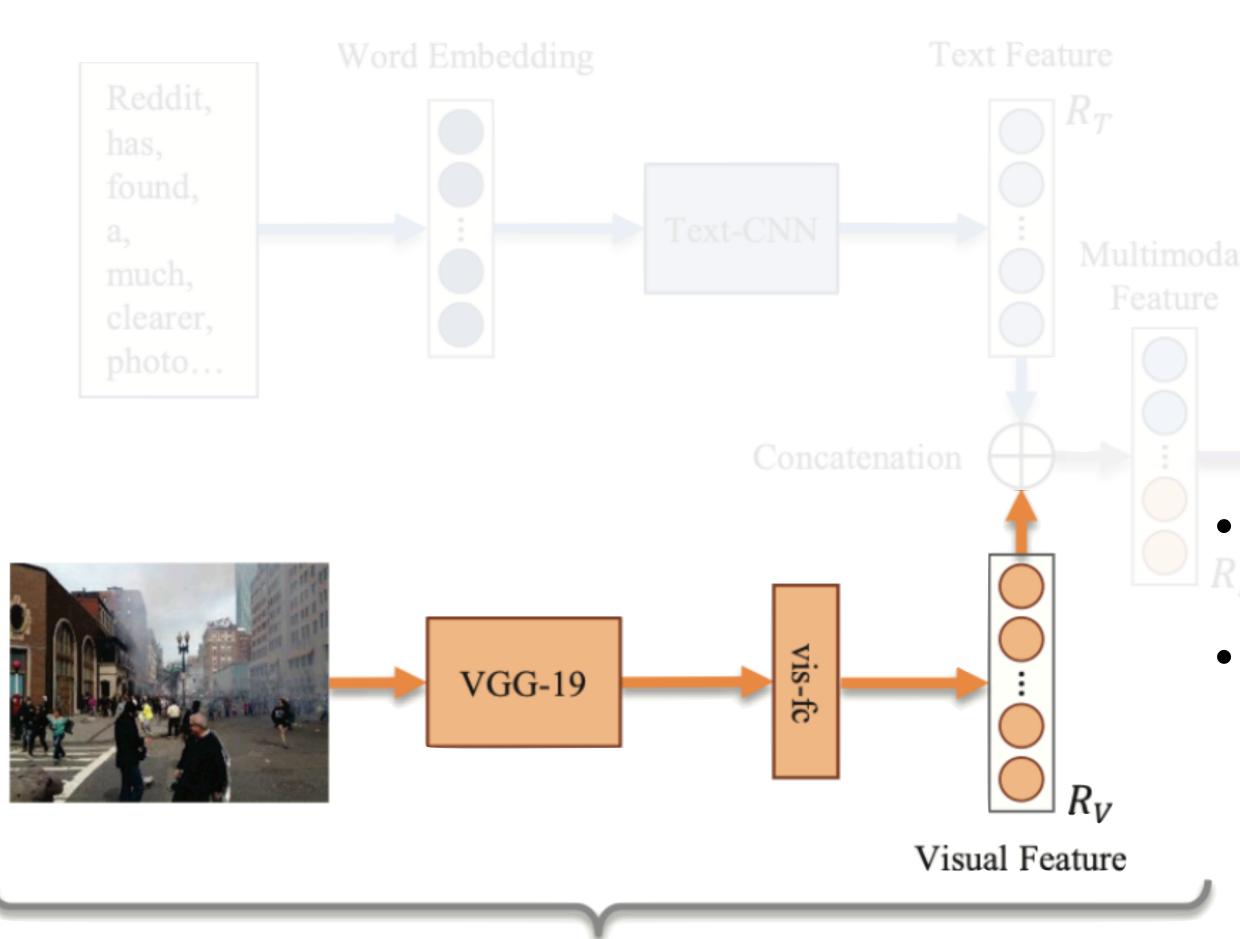
Methodology...

Visual Feature Extractor



Employ VGG19 as text feature extractor

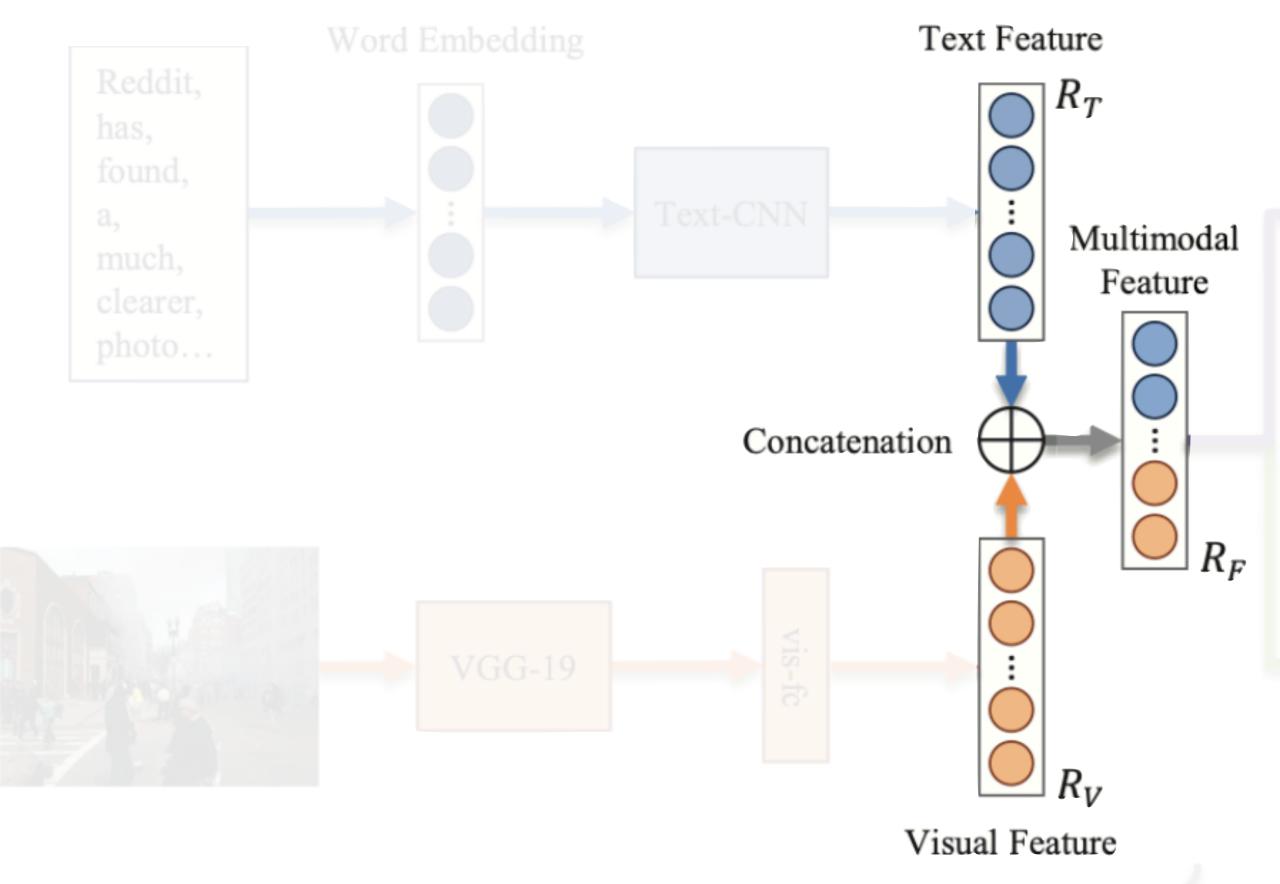
• Add a fully connected layer to adjust the dimension of final representation to p.

•
$$R_V = \sigma(W_{vf} \cdot R_{vgg})$$

Multimodal Feature Extractor

Methodology....

Multi-model Feature Extractor



Fake News Detector

- Concatenated to form the multi-model feature representation denoted as
 - $R_F = R_T \oplus R_R \in \mathbb{R}^{2p}$
- Denote the multi-model feature extractor
 - $G_f(M; \theta_f)$
 - M: a set of textual and visual posts
 - θ_f : parameter to be learned

Multimodal Feature Extractor