

# Experiments.....

## Ablation Study

Method	Accuracy	Precision	Recall	F1
FF+LR	0.650	0.612	0.579	0.595
Pre-trained VGG	0.721	0.669	0.738	0.702
Fine-tuned VGG	0.754	0.74	0.689	0.714
ConvAE	0.734	0.685	0.744	0.713
<b>MVNN</b>	<b>0.846</b>	<b>0.809</b>	<b>0.857</b>	<b>0.832</b>

- EQ1: Is MVNN able to improve the performance of fake news detection based on visual modality?
- 3) Performance of ConvAE is slightly better than Pre-trained VGG. Show that ConvAE has the ability of understanding universal semantics of images, similar to models pre-trained in a supervised manner.
- 4) Performance of FF+LR is the worst methods because captured forensics features is very limited

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## Ablation Study

- **EQ2:** How effective are different domains and other network components: attention, Bi-GRU and branches in the pixel domain sub-network, in improving the performance of MVNN?
- To illustrate the effectiveness of different domains and other network components by removing certain components:

- w/o frequency domain
- w/o pixel domain
- w/o attention
- w/o Bi-GRU
- w/o branches

