

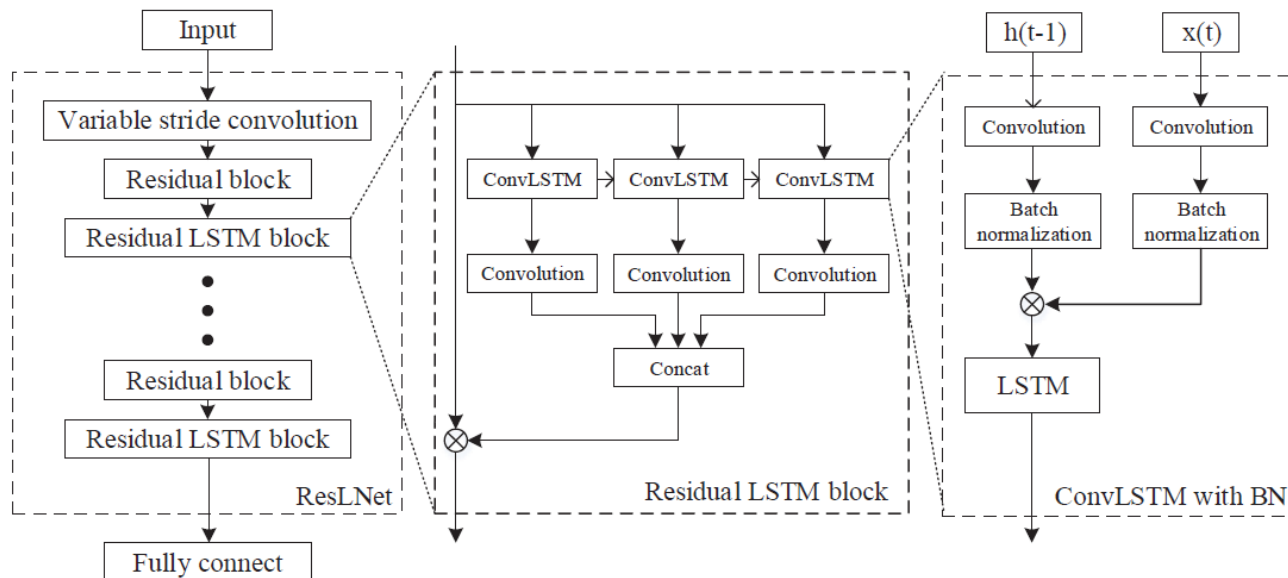
ResLNet: Deep Residual LSTM network with Longer Input for Action Recognition

**Tian WANG, Jiakun LI, Huai-Ning WU, Ce LI,
Hichem SNOUSSI, Yang WU**

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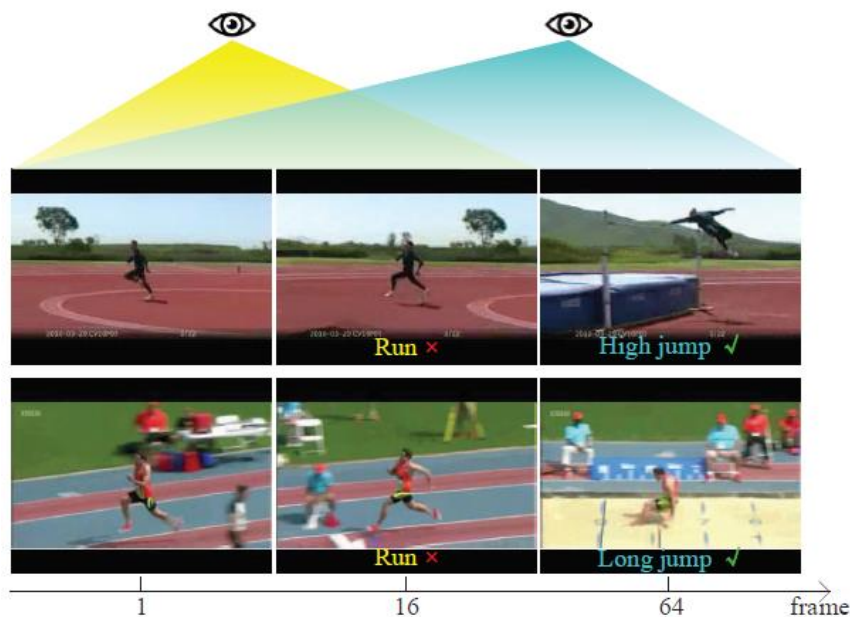
Problems & Ideas

- Problems: The action recognition task is limited by the longest video length that the model can handle.
- Ideas: A new model, ResLNet, is proposed with three novelties:
 - Variable stride convolution
 - Residual LSTM block
 - ConvLSTM with batch normalization



Main Contributions

- The proposed model can analyse longer video
- The proposed ResLNet is evaluated on two datasets and shows great performance.



Model	HMDB51	UCF101
CNN-LSTM (2017) [31]	43.9	84.3
C3D (2017) [31]	24.3	51.6
P3D (2017) [5]	-	88.6
3D-ResNet-18 (2018) [4]	56.4	84.4
LTC (2018) [41]	-	82.4
DEM (2019) [42]	52.6	83.7
ML-HDP (2019) [43]	-	89.3
ResLNet (V)	59.7	87.3
ResLNet (V+L)	55.5	84.0
ResLNet (L+B)	62.4	89.7
ResLNet (V+L+B)	63.1	90.5