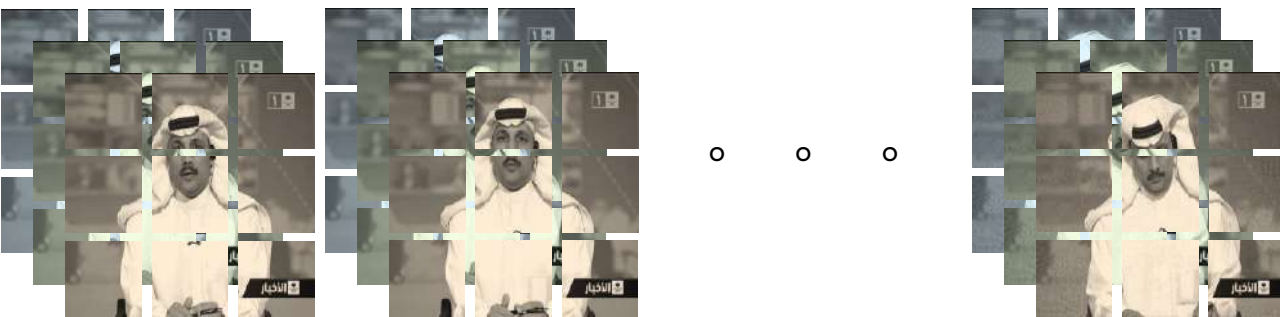
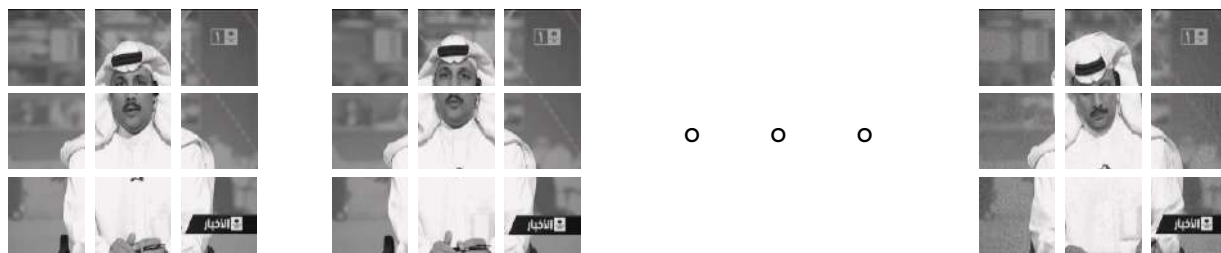


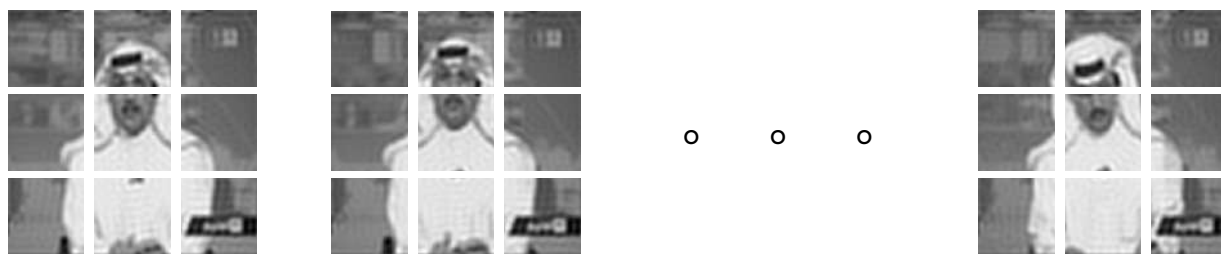
Input Video ( $H \times W \times 3 \times F$ )



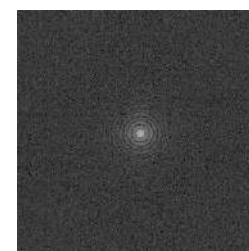
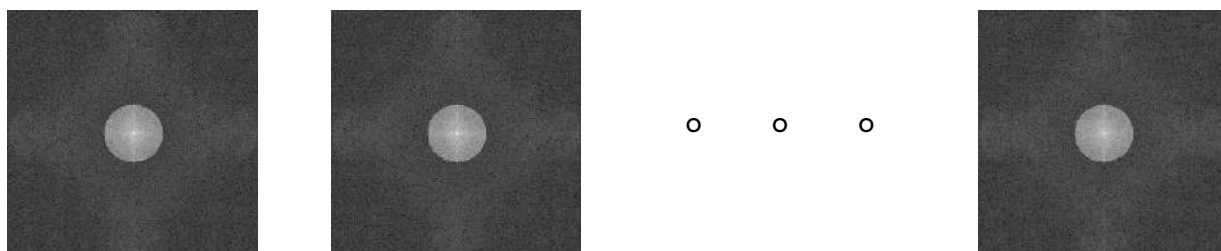
Preprocessing (RGB  $\rightarrow$  Grayscale, Frame Resize, etc.)



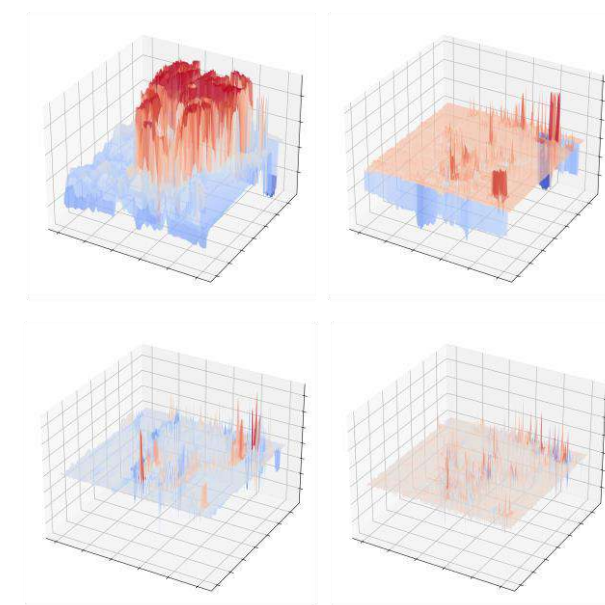
Gaussian low-pass filter



Discrete Fourier Transforms



DFT  
(Averaged over all frames)



Wavelet Sub-bands  
(LL, LH, HL, HH)

Classification

Feature Extraction

Linear  
Regression

Logistic  
Regression

Linear Classifier \*  
(Real / Fake)



Sub-band energies  
( $\epsilon_{LL}$ ,  $\epsilon_{LH}$ ,  $\epsilon_{HL}$ , and  $\epsilon_{HH}$ )



Discrete Wavelet Transforms