

Inputs ( $t-1, t$ )

Boxes + MV + DCT

Boxes  
( $t-1$ )  
 $N \times 4$

$MV_t$   
 $60 \times 60 \times 2$

DCT  
( $t$ )  
 $80 \times 80 \times C$

Box  
Enc  
 $N \times 32$

ROI Extraction

32K params (box-aligned)

MV  
ROI  
Stats  
 $N \times 64$

DCT  
ROI  
Stats  
 $N \times 32$

Fusion & Temporal

196K params

Concat  
 $N \times 128$

BiLSTM  
 $N \times 128$

$\Delta pos$   
 $N \times 2$

$\Delta size$   
 $N \times 2$

Boxes  
( $t$ )  
 $N \times 4$