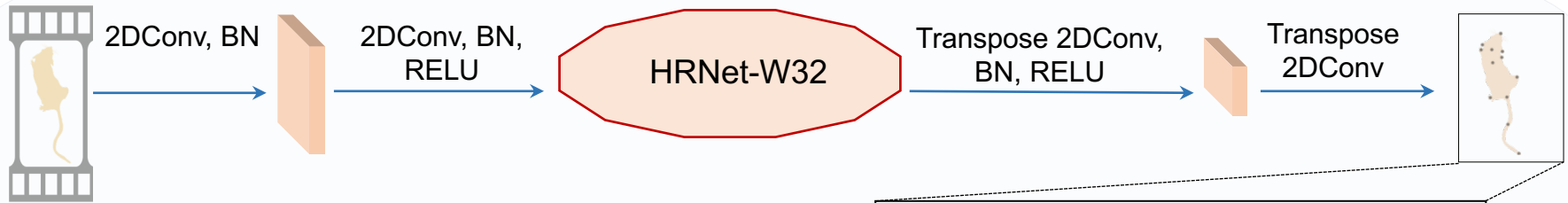
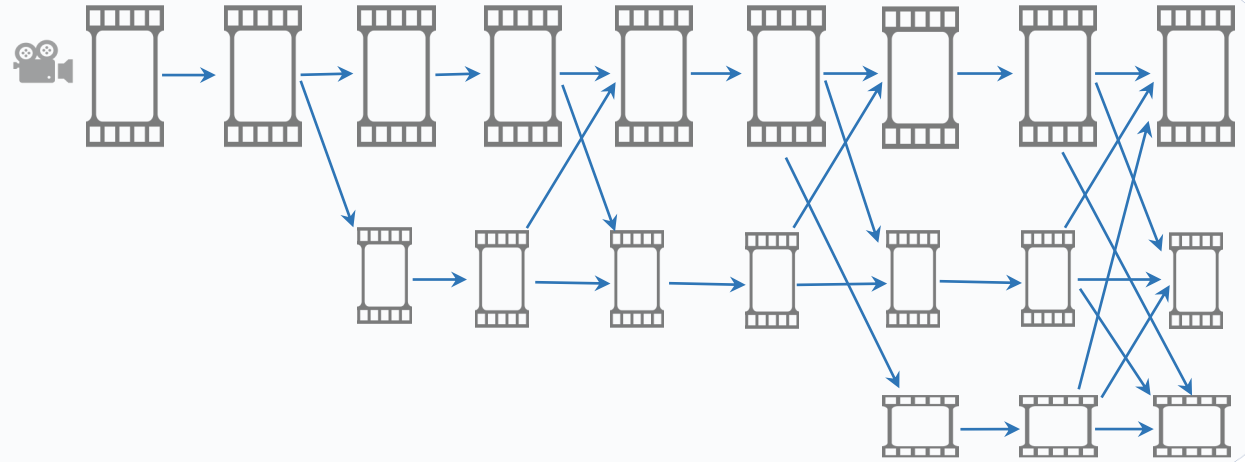


Deep convolutional neural network for pose estimation

A. The HRNet-W32 neural network architecture for performing pose estimation.



B. The inference pipeline sends videoframes into HRNet-W32, following which 2D convolution (2DConv), Batch-Normalization (BN) and Rectified Linear Unit (RELU) operations are carried out which generates twelve key point heatmaps as output. Finally, a 2D argmax is performed on these key point heatmaps to produce the twelve 2D pose coordinates.

1. Nose
2. Ear Left
3. Ear Right
4. Neck Base
5. Forepaw Left
6. Forepaw Right
7. Spine Center
8. Hind Paw Left
9. Hind Paw Right
10. Tail Base
11. Tail Middle
12. Tail Tip

