

Figure 2. The global pooling architecture (left) and the hierarchical pooling architecture (right). These architectures are applied to all the baselines and SAGPool for a fair comparison. In this paper,

the architecture on the left side is referred to as  $POOL_g$  and the architecture on the right side is referred to as  $POOL_h$  with the POOL method (e.g. SAGPool<sub>g</sub>,  $gPool_h$ ).