



$\sigma(\mathbf{W}_f \mathbf{v} + \mathbf{b}_f)$: Forget Gate

$\sigma(\mathbf{W}_i \mathbf{v} + \mathbf{b}_i)$: Input Gate

$\sigma(\mathbf{W}_o \mathbf{z} + \mathbf{b}_o)$: Output Gate