

$$\mathcal{L}_{critic} = E_{(s_t, a_t, g, r_t, s_{t+1}) \sim B} \left[ \sum_{i=0}^{H-1} \gamma^i \hat{r}_{t+i} + \gamma^H Q(\hat{s}_{t+H}, \pi(\hat{s}_{t+H}, g), g) - Q(s_t, a_t, g) \right]^2,$$