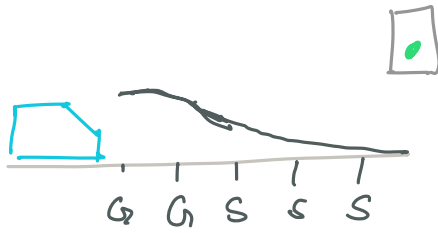
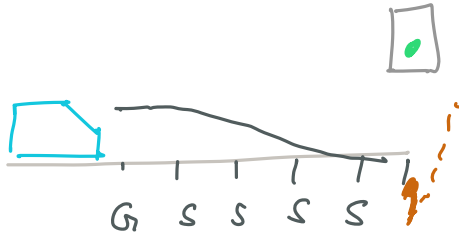
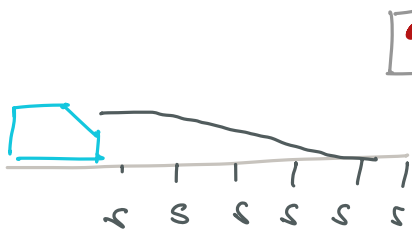
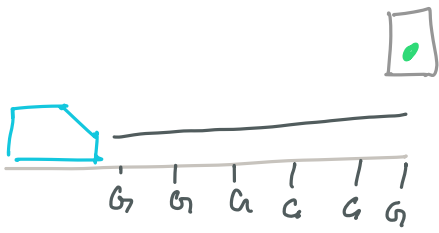
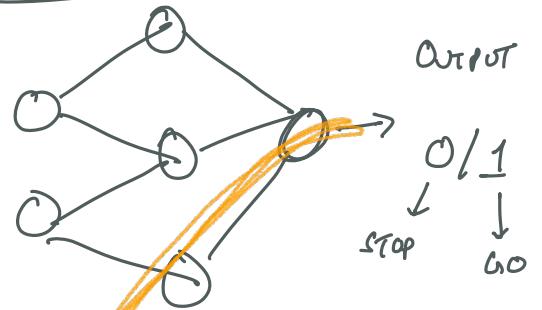


HUMAN DEMONSTRATOR



TRAFFIC LIGHT STATE 0
 POSITION OF CAR 0
 VELOCITY OF CAR 0
 PED ON THE ROAD 0

MODEL



PREVIOUS ACTION

99% , VALIDATION DATASET 95%

PROOF OF $O(\epsilon T^2)$ FROM BC

$$E \sum_{t=1}^T c(s_t, a_t)$$

$s_t \sim \pi^t$
 $a_t \sim \pi(s_t)$

$$E \sum c(s_t, a_t) = 0$$

$s_t, a_t \sim \pi^*$

$$J(\pi) - J(\pi^*)$$

$$= \underbrace{\epsilon (1 + 1 + 1 + 1 + \dots + 1)}_T$$

$$+ (1-\epsilon) \left(0 + \underbrace{\epsilon (1 + 1 + \dots + 1)}_{T-1} \right)$$

$$+ (1-\epsilon)(1-\epsilon)\epsilon(T-2) + \dots$$

$$= \epsilon T + \underbrace{(1-\epsilon)\epsilon}_{\leq 1} (T-1) + \underbrace{(1-\epsilon)^2\epsilon}_{\leq 1} (T-2) + \dots$$

$$\leq \epsilon (T + T-1 + T-2 + \dots)$$

$$\leq \epsilon \frac{T(T+1)}{2}$$

$$O(\epsilon T^2)$$

