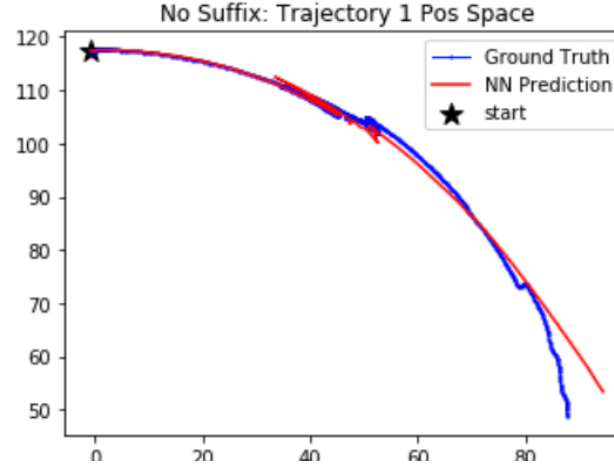


Meeting

05/12/2020

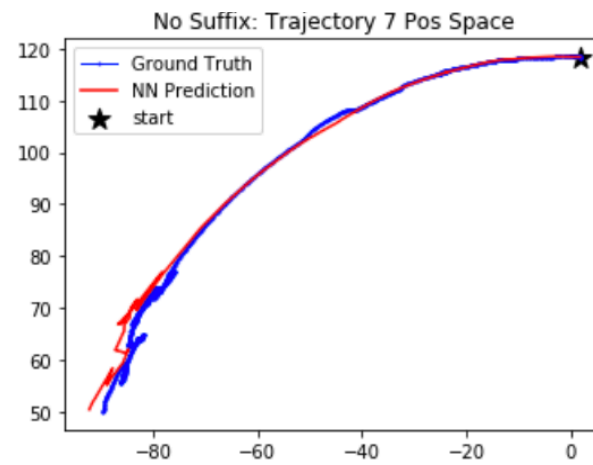
Shuo Zhang



- **Actions:**

- 1) 60 steps $(-0.21, -0.59)$
- 2) 150 steps $(0.86, -0.53)$
- 3) 60 steps $(-0.59, 0.67)$
- 4) 70 steps $(0.29, -0.59)$
- 5) 40 steps $(0.80, 0.18)$
- 6) 60 steps $(0.95, 0.93)$
- 7) 50 steps $(-0.59, -0.60)$
- 8) ...

- **Continuous Actions!**



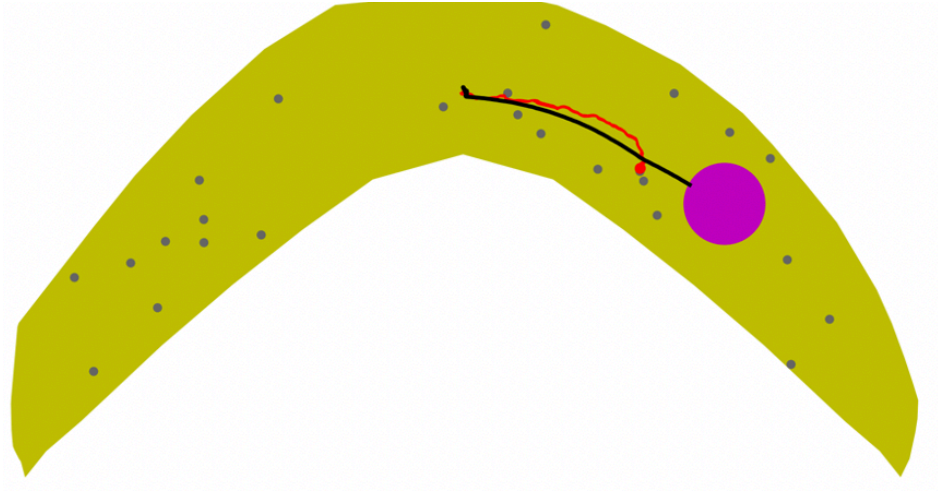
- **Actions:**

- 1) 20 steps $(-0.62, -0.13)$
- 2) 50 steps $(-0.73, 0.20)$
- 3) 60 steps $(-0.99, -0.81)$
- 4) ...

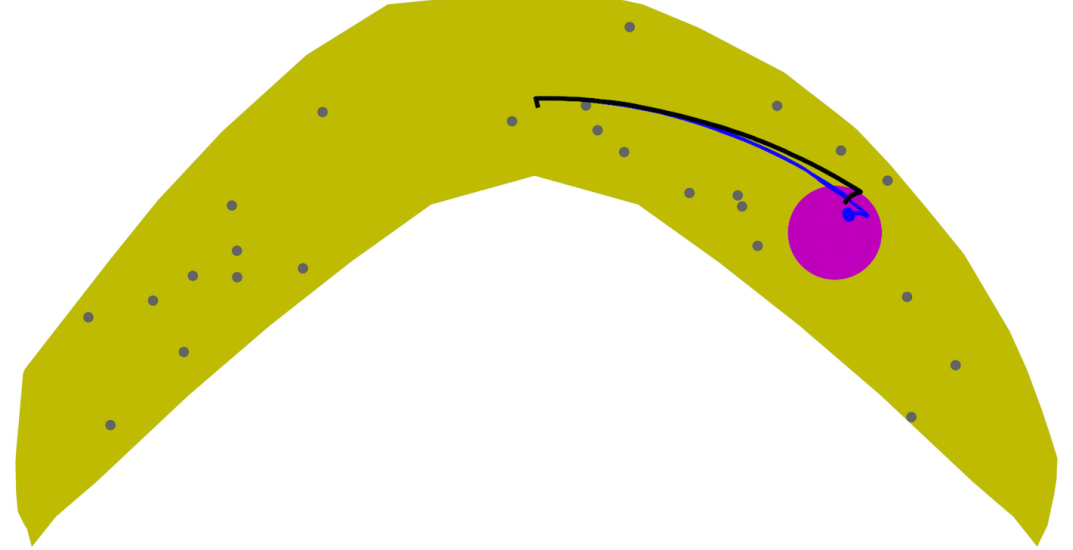
- **Continuous Actions!**

Goal 8 Obstacle 0.75mm

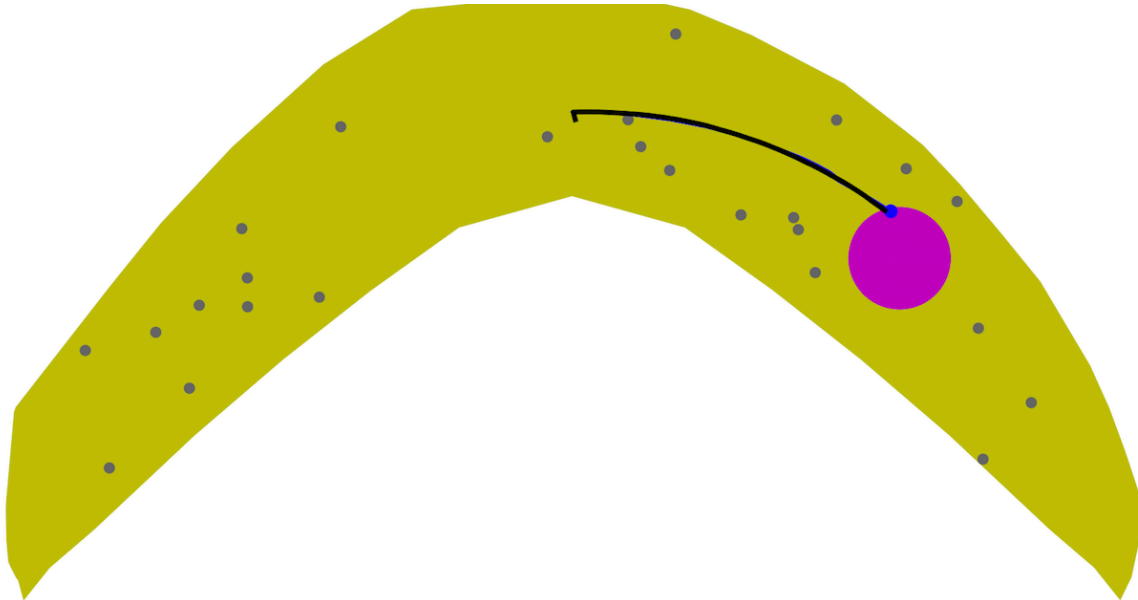
$\text{dist_sofar} + 1000 * \text{check_turnback}$



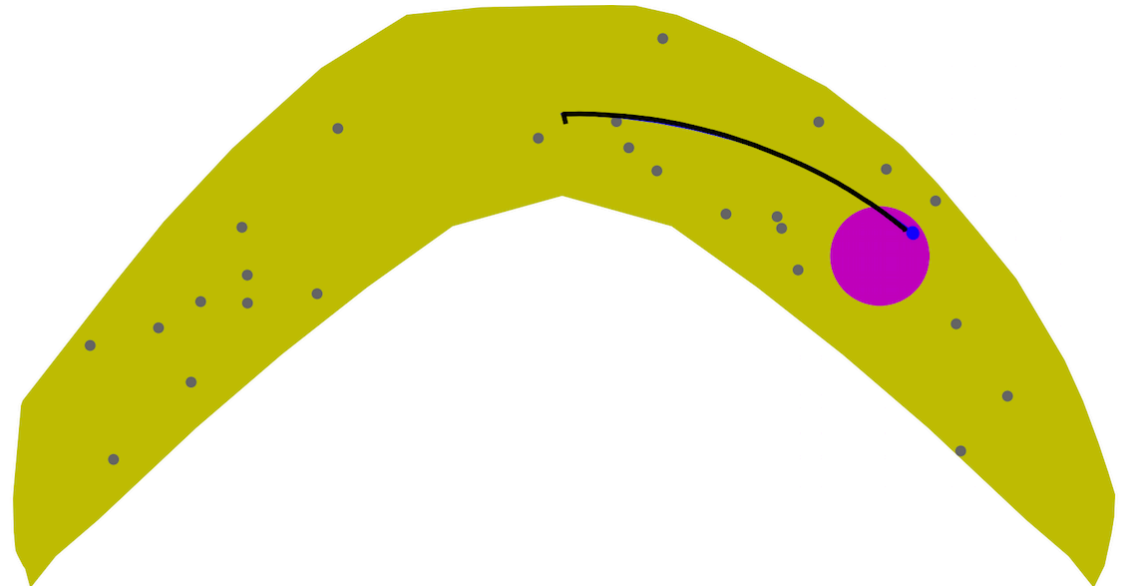
$\text{dist_sofar} + 10 * \text{dist_togoal} + 1000 * \text{check_turnback}$



$\text{dist_sofar} + 100 * \text{check_action} + 1000 * \text{check_turnback}$



$\text{dist_sofar} + 10 * \text{dist_togoal} + 100 * \text{check_action} + 1000 * \text{check_turnback}$



Discussions

- It seems that last time, model could not produce accurate prediction because my actions for planning are discrete and values, -1 or 1m are higher than the raw data
- Raw Data: $(a1, a2)$ with $a1$ and $a2$ both continuous and within the range $[-1, 1]$
- My 8 actions for planning : $(1,1), (1,0), (1,-1), (0,1), (0,-1), (-1,1), (-1,0), (-1,-1)$
- Do we need to deal with this so that our rollout and model prediction can match each other more?