

1)

CS 59000 Reinforcement Learning (RL)

Instructor: Prof. Kamran Azizzadenesheli

M/W 4:30-5:45 LWSN 8155

office hr: 5:45-6:45

<https://guenestatus.com/queues/1057>

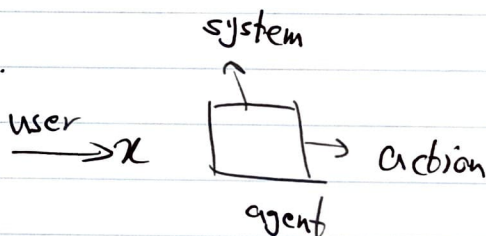
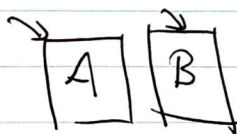
Agenda:

- Introduction
- other stuff

RL: The study of sequential decision making under uncertainty.

Recommendation System.

Advertisement



news industry: MSN, Yahoo,

Netflix: Recommendation System.

Dialogue systems: Siri, Ghome, Alexa.

stock market:

2)

Babies:

Drug discovery.

A	B	C	D
↓	↓	↓	↓
70	40	60	90

P_1	D_2	D_3	D_4
↓	↓	↓	↓

Weather prediction:

self driving cars.

spotify recommendation.

power grid management.

Data center cooling.

Robotics:

Control system:

$$x_{t+1} = f(x_t, a_t)$$

$$x_{t+1} = f(x_t, a_t, \omega_t)$$

$$\dot{x}_t = f(x_t, a_t, \underline{a}_t)$$

Designing Electrical circuit.

Game theory

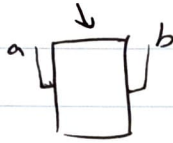
Game playing.



3)

Pavlov Exp.

Casino:



$$\begin{array}{r|l} a & 10 \quad 10 \quad 0 \quad 0 \\ \hline b & 0 \end{array}$$

think about this sentence:

Pinocchio says:

My nose grows now!