CSIT5900 (L1) - Artificial Intelligence

Jump to Today

Lecture Schedule

(The lecture notes are slides. You cannot take the course by just reading them. Examples and some detailed work out will be given in classes. You can also read the reference books.)

- Week 1 (6/9). Introduction (lect1.pdf (https://canvas.ust.hk/courses/58102/files/9362471?wrap=1)). Simple Agents (lect2.pdf (https://canvas.ust.hk/courses/58102/files/9362472?wrap=1))
- Week 2 (13/9). Simple Agents.

Course Information

Teaching Team

Instructor: Fangzhen Lin (http://www.cs.ust.hk/~flin (http://www.cs.ust.hk/~flin))

TA: DENG Yunlong (ydengbl@connect.ust.hk (mailto:ydengbl@connect.ust.hk))

Syllabus (not necessarily in this order)

- Simple intelligent agents (designing agent controller by rules, supervised learning, genetic programming)
- Search (Uniformed, Heuristic, Adversarial, MDP)
- Learning (supervised, unsupervised, reinforcement, rule-based)
- Knowledge Representation, Reasoning, and Planning
- Multi-agent systems, game theory and auction
- Uncertainty
- Generative AI: student presentations

Marking Scheme

- 15% for three assignments (each assignment will have a written questions part and a programming questions part).
- 15% for presentation.
- 70% for the final exam.
- Bonus points for active participation in class discussions as well as other worthy contributions.

Reference Book

N. Nilsson. Artificial Intelligence: A New Synthesis. Morgan Kaufmann Publishers, Inc., 1998.

S. Russell and P. Norvig. Artificial Intelligence: A Modern Approach. Second Edition. Prentice Hall, 2003.

Y. Shoham and K. Leyton-Brown. Multiagent Systems: Algorithmic, Game-Theoretic, and Logical Foundations. Cambridge University Press (December 15, 2008)

I. Goodfellow and Y Bengio and A Courville. Deep Learning. MIT Press 2016.

R. Sutton and A. Barto. Reinforcement Learning: An Introduction. 2nd Edition. MIT Press, Cambridge, MA, 2018. (**http://www.incompleteideas.net/book/the-book-2nd.html (http://www.incompleteideas.net/book/the-book-2nd.html)**)

Internet at large: Examples: google search ("generative AI pdf"), ChatGPT ("explain reinforcement learning")

Honor Code

Follow the university policy on cheating and plagiarism.

Course Summary:

Date	Details	Due