Artificial Intelligence CMPS140

Professor Ira Pohl pohl@cs.ucsc.edu Office Hours: Tuesday 1-2 April -June 2009 TA Foaad Khosmood foaad@ucsc.edu

This course is an introduction for CS majors to Artificial Intelligence. The course text is Russell and Norvig: 2nd edition. The class is a capstone course and a project is required of everyone.

Overview Problem 1 - due April 22, before class

Implement the pohl-warnsdorf rule for finding a hamiltonian. Test it on finding a knights tour on a 6 by 6 board and on a 8 by 8 board.

You can use any reasonable computer language. There will be a more detailed writeup.

Schedule

- Class requirements/ Overview of AI
- Turing Test - AI Early history
- Chapter 2 - agents
- Chapter 3 - search basics
- Guest Lecture -assignment 1 due
- Chapter 4 - A*
- LISP
- LISP - Prisoner's dilemma tournament
- Theory of H Search-Optimality -proposal
- Chapter 6 - Game Playing 1
- Game Playing 2
- Midterm Ch1-4,6, plus lisp and hw
- Results of PD tournament
- Chapter 7 - propositional logic
- Chapter 8 - predicate logic
- Chapter 9 - resolution and inference
- Chapter 22- natural language
- Chapter 26- philosophical foundations

- Class project presentations
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Grading

- Term Project 50
- Midterm 25
- Hw- Pohl- Warnsdorf's rule 10
- Hw- prisoner's dilemma 10
- class presentation and participation 5