Assignment 3

CS 482/682: Artificial Intelligence Fall 2013 Max Score: 100

Objectives

1. Learn and demonstrate knowledge of Constraint Satisfaction Problems using constraint propagation and search

Use the AC3 algorithm or, if necessary, backtracking search and AC3 to write a 9×9 sudoku puzzle solver. Fifty (50) starting 9×9 sudoku grids are available from the class web page and you should use your solver to solve all fifty.

In your typeset assignment report, describe

- All CSP heuristics that your algorithm uses

Graduate Students

Your program should also solve the 16×16 sudoku puzzles linked to on the class web page. Undergrad students can solve these for extra credit. Grad students can talk to me for extra-credit possibilities.

1 Turning in your assignment

1. At the beginning of class, turn in hardcopy to me with
   (a) Your FULL name and email address
   (b) Source code listing
   (c) The 50 starting and solved 9×9 Sudoku grids as part of a script that shows your program running. Grads will also need to provide the 16×16 puzzles and their solutions.

Ask me (sushil@cse.unr.edu) if you have questions.