

Assignment 3: Minimax and Alpha-Beta Pruning

Question 2 – Minimax

The following text is the output from running the command *python autograder.py -q q2*:

Question q2

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*** PASS: test_cases\q2\0-eval-function-lose-states-1.test

*** PASS: test_cases\q2\0-eval-function-lose-states-2.test

*** PASS: test_cases\q2\0-eval-function-win-states-1.test

*** PASS: test_cases\q2\0-eval-function-win-states-2.test

*** PASS: test_cases\q2\0-lecture-6-tree.test

*** PASS: test_cases\q2\0-small-tree.test

*** PASS: test_cases\q2\1-1-minmax.test

*** PASS: test_cases\q2\1-2-minmax.test

*** PASS: test_cases\q2\1-3-minmax.test

*** PASS: test_cases\q2\1-4-minmax.test

*** PASS: test_cases\q2\1-5-minmax.test

*** PASS: test_cases\q2\1-6-minmax.test

*** PASS: test_cases\q2\1-7-minmax.test

*** PASS: test_cases\q2\1-8-minmax.test

*** PASS: test_cases\q2\2-1a-vary-depth.test

*** PASS: test_cases\q2\2-1b-vary-depth.test

*** PASS: test_cases\q2\2-2a-vary-depth.test

*** PASS: test_cases\q2\2-2b-vary-depth.test

*** PASS: test_cases\q2\2-3a-vary-depth.test

*** PASS: test_cases\q2\2-3b-vary-depth.test

*** PASS: test_cases\q2\2-4a-vary-depth.test

*** PASS: test_cases\q2\2-4b-vary-depth.test

*** PASS: test_cases\q2\2-one-ghost-3level.test

*** PASS: test_cases\q2\3-one-ghost-4level.test

*** PASS: test_cases\q2\4-two-ghosts-3level.test

*** PASS: test_cases\q2\5-two-ghosts-4level.test

Student: Hanna Elin Hansen Reiestad (Hereiest)

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*** PASS: test_cases\q2\6-tied-root.test
*** PASS: test_cases\q2\7-1a-check-depth-one-ghost.test
*** PASS: test_cases\q2\7-1b-check-depth-one-ghost.test
*** PASS: test_cases\q2\7-1c-check-depth-one-ghost.test
*** PASS: test_cases\q2\7-2a-check-depth-two-ghosts.test
*** PASS: test_cases\q2\7-2b-check-depth-two-ghosts.test
*** PASS: test_cases\q2\7-2c-check-depth-two-ghosts.test
*** Running MinimaxAgent on smallClassic 1 time(s).

Pacman died! Score: 84

Average Score: 84.0

Scores:      84.0

Win Rate:    0/1 (0.00)

Record:      Loss

*** Finished running MinimaxAgent on smallClassic after 15 seconds.

*** Won 0 out of 1 games. Average score: 84.000000 ***

*** PASS: test_cases\q2\8-pacman-game.test
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Question q2: 5/5

Provisional grades

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Question q2: 5/5

Total: 5/5

Question 3 – Alpha-Beta pruning

The following text is the output from running the command *python autograder.py -q q3*:

Question q3

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```
*** PASS: test_cases\q3\0-eval-function-lose-states-1.test
*** PASS: test_cases\q3\0-eval-function-lose-states-2.test
*** PASS: test_cases\q3\0-eval-function-win-states-1.test
*** PASS: test_cases\q3\0-eval-function-win-states-2.test
```

Student: Hanna Elin Hansen Reiestad (Hereiest)

*** PASS: test_cases\q3\0-lecture-6-tree.test
*** PASS: test_cases\q3\0-small-tree.test
*** PASS: test_cases\q3\1-1-minmax.test
*** PASS: test_cases\q3\1-2-minmax.test
*** PASS: test_cases\q3\1-3-minmax.test
*** PASS: test_cases\q3\1-4-minmax.test
*** PASS: test_cases\q3\1-5-minmax.test
*** PASS: test_cases\q3\1-6-minmax.test
*** PASS: test_cases\q3\1-7-minmax.test
*** PASS: test_cases\q3\1-8-minmax.test
*** PASS: test_cases\q3\2-1a-vary-depth.test
*** PASS: test_cases\q3\2-1b-vary-depth.test
*** PASS: test_cases\q3\2-2a-vary-depth.test
*** PASS: test_cases\q3\2-2b-vary-depth.test
*** PASS: test_cases\q3\2-3a-vary-depth.test
*** PASS: test_cases\q3\2-3b-vary-depth.test
*** PASS: test_cases\q3\2-4a-vary-depth.test
*** PASS: test_cases\q3\2-4b-vary-depth.test
*** PASS: test_cases\q3\2-one-ghost-3level.test
*** PASS: test_cases\q3\3-one-ghost-4level.test
*** PASS: test_cases\q3\4-two-ghosts-3level.test
*** PASS: test_cases\q3\5-two-ghosts-4level.test
*** PASS: test_cases\q3\6-tied-root.test
*** PASS: test_cases\q3\7-1a-check-depth-one-ghost.test
*** PASS: test_cases\q3\7-1b-check-depth-one-ghost.test
*** PASS: test_cases\q3\7-1c-check-depth-one-ghost.test
*** PASS: test_cases\q3\7-2a-check-depth-two-ghosts.test
*** PASS: test_cases\q3\7-2b-check-depth-two-ghosts.test
*** PASS: test_cases\q3\7-2c-check-depth-two-ghosts.test
*** Running AlphaBetaAgent on smallClassic 1 time(s).

Pacman died! Score: 84

Average Score: 84.0

Scores: 84.0

Student: Hanna Elin Hansen Reiestad (Hereiest)

Win Rate: 0/1 (0.00)

Record: Loss

*** Finished running AlphaBetaAgent on smallClassic after 14 seconds.

*** Won 0 out of 1 games. Average score: 84.000000 ***

*** PASS: test_cases\q3\8-pacman-game.test

Question q3: 5/5

Provisional grades

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Question q3: 5/5

Total: 5/5