

# Artificial Intelligence

## Contest 2

**Part 1 Due:** 5 pm Tuesday, October 3. Late assignments will not be accepted.

### Part I

**Goal:** Write improved heuristic to playing Pente.

**Files:** Checkout the contest repository from the git directory you already set up using `git checkout -b contest2 origin/contest2`. You should only change the functions `heuristic` and `movePriority`.

**Testing:** The best way to test your program is to run your agent against itself and watch for mistakes and sub-optimal play. Use this to guide changes to the two functions. To run this test run

```
pypy PlayLocal.py player1file player2file timelimit -g graphics_scale -o
```

To test against itself set both `player1file` and `player2file` to `MyPlayer.py`. `Timelimit` should be set to 10-15 seconds. Type `pypy Playlocal.py` for a description of the parameters.

**Submission:** Submitting your files will automatically test your code and post results on the contest page. This way you know how you perform relative to your classmates and the reference implementations. Your agents will be given a maximum of 15 seconds per move to make their decisions.

**Grading:** This will count as 10% of your grade for contest2. Grading will be based on your performance against 10 reference implementations.

### Part II

**Final Version Due:** 5 pm Monday, October 16

**Files:** You can make any changes to `MyPlayer.py` that you like. You also must submit a description of the algorithm that you used in the file `description.txt`. (Make sure you add it to your git repository before submission.)

**Grading:** 30% of the grade will be based on the performance of your player. 40% of the grade will be based on your code, in particular, the improvements you make to the algorithm. You are expected to make several of the improvements discussed in class. The remaining 20% will be based on the documentation of your algorithms.