CPresentation Outline

Jeremy is explain the game

* Game board
  + Define terms
  + How to play
  + How to win
* (Don’t say we changed stuff)

What we added - Shannon *(No slide for Shannon, keep it at Jeremy’s gameboard slide)*

* Integrated code from 2 places
* We simplified the rules of the original game that we picked
  + Win by 1 block instead of 3
  + No 3 corner rules
    - Sang: Flip back to gameboard slide for his example
* We added more options to play the game
* We modified the output to make it more human readable
  + Changed block status to winning block

How project solves problem - Stephanie

* We have 2 unintelligent bots Easy and Medium
  + Easy: randomly
  + Bs
  + Medium:
    - Blocks any opponent’s winning moves
    - If corners are open, play in the corner
    - Randomly
* AI heuristics
  + Alpha-beta minimax search
  + Iterate through each block on the game board and count the number of opponents pieces per block
  + Find the min in each block and invert the values
    - (For Steph only notes: Small number = not many opponent’s moves, so maximize this because we like this option as our choice of move)
  + We try to maximize our moves by sending them to the board with the least amount of opponent’s pieces
    - Steph only: Found that taking our return values and \* them by a high number prioritizes the moves to make and the AI plays better

Winning Statistics 0 - 60,000 return value- Sang

* AI vs Easy bot: AI won 95%
* AI vs Med bot: AI won 75%
* Easy vs Med: medi won 55%
* Jeremy vs Shannon - they both suck (:

Showtime - Shannon driving, Sang talking about it

* Sang will try playing against the AI!
  + Say (row, column)
  + Invalid move terminates play and other person wins
* From a student’s seat, have them tell us coordinates