

Project: A multiplayer remake of the original Pac-Man arcade game

Team name: Pac-Man

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Play it yourself: <https://github.com/theQuarkBot/PacMan>

You've probably played Pac-Man before, but have you ever played it with a second player – and were they a ghost? Just like the classic one-player game, you explore the retro maze, collecting pellets and evading the sly ghosts. If they catch you three times, you're done. Of course, eating a super pellet reverses the roles, letting you chase the ghosts towards the end of the earth. Once all the pellets are eaten, the game is over and you can see your score. Unlike the classic game however, another player can assume the role of a ghost, making the game that much more confounding. Get the highest score you can...but don't get caught!



The game was built mainly using the Pygame module and the built-in threading class. Whenever the game advances to a new frame (60 times per second), the game first displays the board and each character, then it captures the current key-presses to send to the characters. Each character has a thread which accepts the key-presses, and uses them to calculate the next move. If a bot controls the character, then it simulates its own keypresses. The game only advances to the next frame if all characters finish calculating their next move.