

Ruawatrain

Benjamin Belotser, Josiah Moltz, David Deng

## **Project Idea**

Must-haves: Recreate Pacman in terminal.

Reaches (estimated order of completion): Highscore list, create powerups that allow Pacman to kill ghosts and bonus fruits, make processing version, “Hunted” gamemode, prettify

## **The Regular Game Deets**

### Ghosts

Ghosts will use a modified version of the maze-solving algorithm to track a path to the player.

The dumber ghosts (i.e. Inky (blue) and Clyde (orange)) will not have this algorithm because they’re well... dumb.

The smart ghosts (i.e. Blinky (red) and Pinky (pink)) will have this algorithm that will allow them to track a path to Pacman when in a specific vicinity of the latter. The algorithm will also alter being “on” and “off” depending on the value of a number that determines the probability of doing so. A higher level will have a larger probability of these ghosts using this tracker.

### Map

Map will be represented as a 2D array of Strings

Each square will contain a chip that Pacman can eat, which will be reset at the start of a new level.

Either be using multiple arrays for every entity on the board or designing a Tile class to store multiple positions on the array.

### Score

How many “chips” you eat.

When powerups are added, each ghost will be worth  $100 * 2^{(\text{number of ghosts eaten with this powerup})}$

## **The Next-Gen Game Deets**

“Hunted”

Pacman will run away from three stupid ghosts, one of which is you :)

However, you have the ability to control your stupid ghost :)

