

Pacman-Ghost

Shortest Path Game Agent

Group Members:

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Project Description:

This is a *Pacman* game agent that uses the Dijkstra algorithm to find the shortest path for each *Ghost*, to the *Pacman*, to chase it. Each time *Pacman* changes position, for each *Ghost* a new shortest path is generated to follow. This will be paired with visual feedback showing the algorithm in action using a standard maze, the *Pacman* and one or more *Ghosts*. There will also be *Pacman* movement control for the user to visualise the shortest path regeneration every time *Pacman*'s position is changed.

Project Outcome:

A game agent that allows each of the *Ghosts* in a *Pacman* game to chase *Pacman* using the shortest path.

Resources:

- Python Libraries: Pygame, Numpy, Sys
- 2D Sprites