I’ve decided to upload a game clone of Pacman because I thought that this game would be a good example of using finite state machines (some of the states being chase, scatter, wait and run for the ghosts), path finding (using waypoints; also, it would be ideal if the ghosts utilized the A\* algorithm when trying to find the shortest route to Pacman) and steering behaviours (more specifically, collision detection, obstacle avoidance and pursuit and evasion). The game visually represents different states, such as when Pacman eats a power-up and the ghosts turn blue, or when they come back to their initial state of chasing Pacman and the transition state is represented by them constantly changing colours between blue and white. Also, the game demonstrates the ghosts, which constitute the AI, interacting with the player-controlled character by pursuing it in different ways (each ghost reacts differently; for example, while one would always chase Pacman when it is in the ghost’s range of vision, another would try to chase Pacman by always taking the alternative route, reducing the chances of escape), or by evading it when in a weakened state.

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