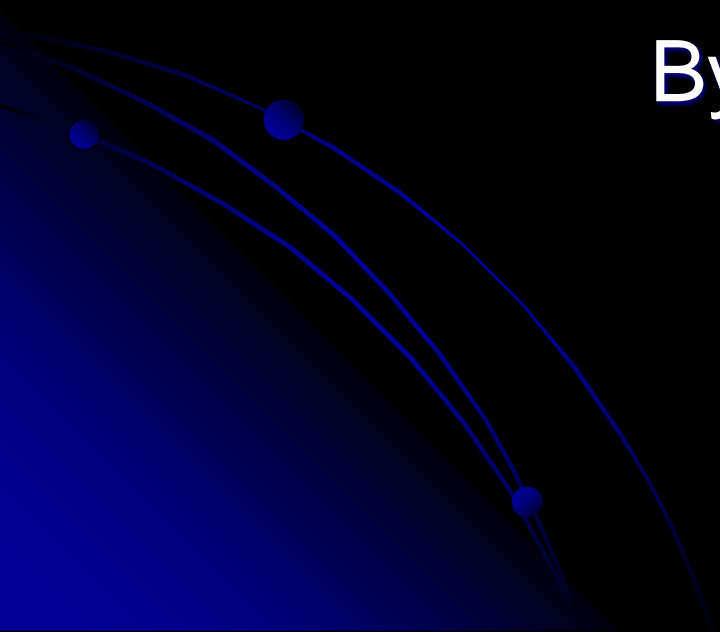


Pac-Man Concept

By Dorian Pazur



30 Seconds of Fun

- Pac-Man tries to eat all the dots in the maze, but watch out! There are ghosts out to get him. Each ghost has its own personality, making their collective efforts to thwart your plan of eating the maze clean of its dots difficult to predict, but no worries, 4 big dots in the corners of the maze allow Pac-Man to turn the tables around, allowing him to scare and eat them to temporarily neutralize their threat.

Background

- Game takes place in a maze with two loop-around portals at the sides. Ghosts have their own spawn area in the middle of the maze where they and Pac-Man are safe from each other.
- You play as Pac-Man. Your goal is to get the highest score you can by eating dots, ghosts, and whatever bonus item appears under the ghost house from time to time.

Features

- 4 ghosts that try to attack Pac-Man in slightly different ways (by targeting different spots relative to where he is and where he's looking)
- Eating stuff
- High score challenge
- Optional turn-based multiplayer (play independently in turns but compete against each other for a higher score)

Pillars

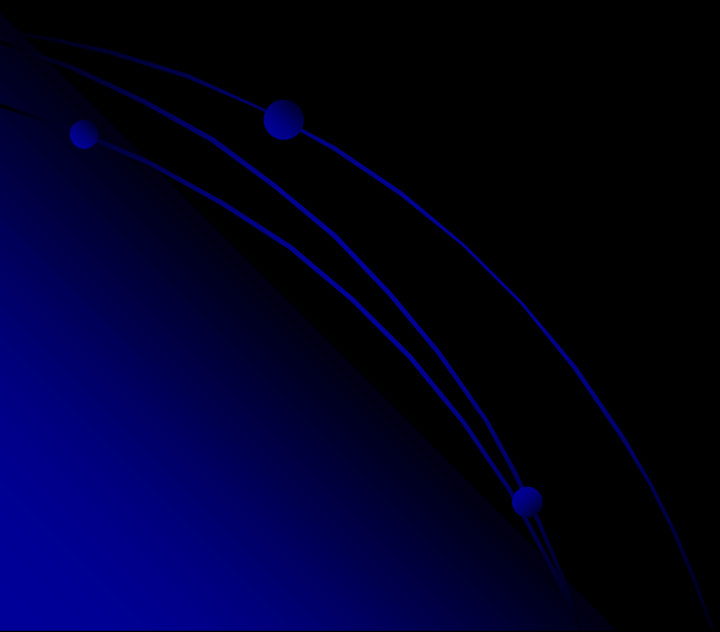
- Movement – Navigate Pac-Man around the maze to eat all of the dots and try to rack up extra points using the bonuses.
- Ghosts and their behavior – Each ghost tries to target its own spot relative to Pac-Man, and gets there by taking turns that will get them closer to their current target in the immediate future without being allowed to do a 180 degree turn.
- Eating – Main focus of Pac-Man's gameplay aside from moving is eating things: eat anything that is edible and avoid anything that isn't.

Skills used

- Classes [Pac-Man, ghost, bonus item, etc.]
- Arrays [Maze grid layout, dots, etc.]
- Graphics [Sprites, maze background, dots]
- Source control [Git and GitHub]
- Software [Visual Studio, Photoshop, Audacity, etc.]
- Teamwork
- Documentation [comments, designs, concepts, etc.]

Fun to work on

- Pac-Man's simple gameplay is addictive
- The ghosts' pathfinding is fascinating but simple
- So Retro™



Elements

- Visual asset creation
 - Compile art into spritesheets (and potentially tilesets)
- Audio asset creation
 - Compile and edit Pac-Man sounds and intro jingle
- Basic gameplay
 - Pac-Man can traverse maze without clipping through its walls, eat pellets
- Ghost pathfinding
 - “Think” about next move on each new tile that it lands on – aim to make a move that gets you closer to your target (in terms of straight line distance; simple pythagoras)
- Pac-on-ghost collision
 - Determine who should die in that scenario (Powered up? Ghost dies. Otherwise, you’

Elements

- Video
- Project management

