Carnegie Mellon University

Porting Pac-Man

[Strange_Team_Name_Here]
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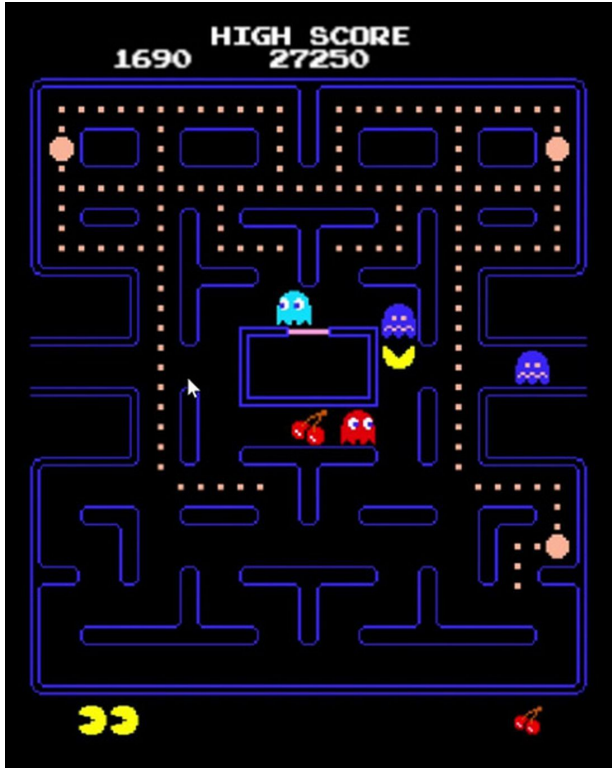
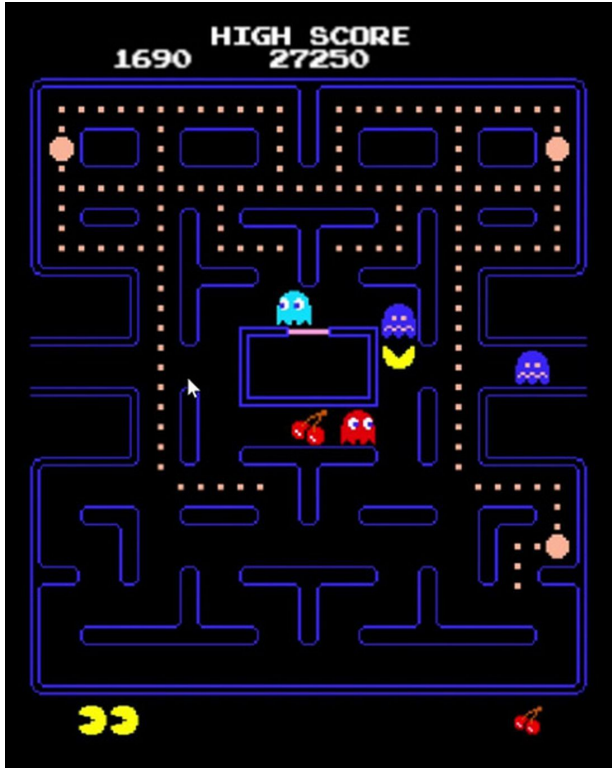
Why Pac-Man?

- Provides a challenge that is focused on background computation over visual complexity
- Implementing path-planning algorithm for each type of ghost
- Who doesn't love Pac-Man? It's legacy must live on!



Program Objectives

- Replicate Pac-Man gameplay, functionality, and visualization
- Visualize using OpenGL
- Yssimplesound for soundtracks



Potential Stretch Goals

- 2-Player mode with Ms. Pac-Man
- Visual Game Versioning (ie. Pixelization)
- New ghosts with different behaviors
- New maps

Component Decomposition

- **Modularization**
- Menus
- Map Generation
- Scoreboard and Tracking
- Highscore Tracking b/w Games
- Ghost Behavior
- Power-Pellet Tracking
- Power-Ups
- Animations

https://pacman.fandom.com/wiki/Maze_Ghost_AI_Behaviors

Coding Challenges

- In-game and transition animations
- Replicate the unique behaviors of each ghost in chase and scatter modes

	Blinky	**Inky**	**Pinky**	**Clyde**
Chase Mode	Direct Follow	Double Blinky's Target Distance	Follows 2 Dots Ahead	Remain in Bottom Left of 8-Dot Radius
Scatter Mode	Top Right	Bottom Right	Top Left	Bottom Left

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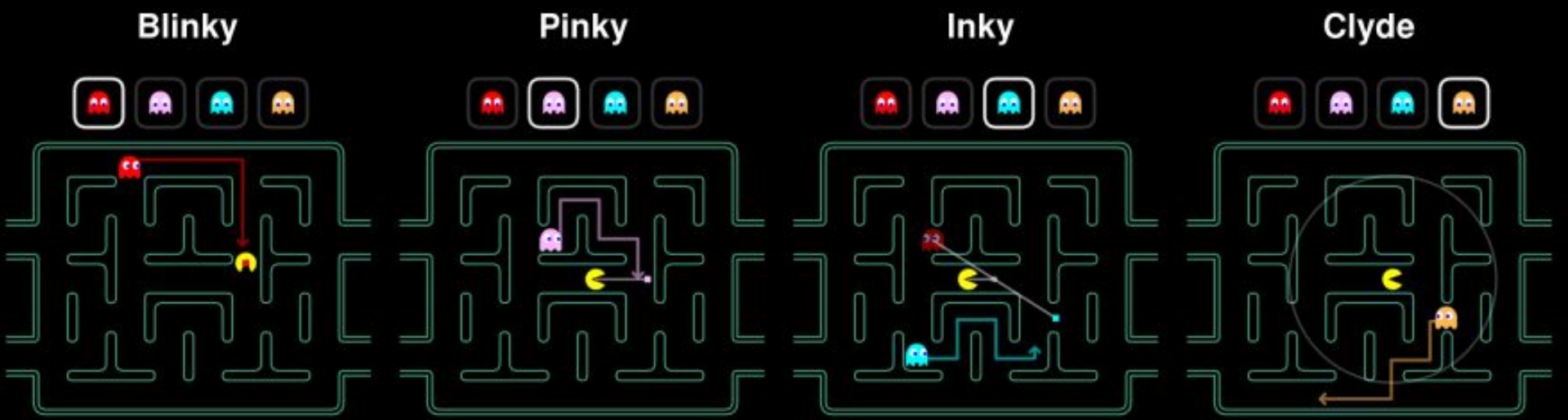
Coding Challenges



https://dev.to/code2bits/pac-man-patterns--ghost-movement-strategy-pattern-1k1a