

CS 4900

Week 7 Writeup

Group 1: Merritt Hancock, Kenda Blair, Ryan Trull, Alan Bettis

### **Details**

#### **Changelog:**

- 1) Researched States and State Machines for AI via Yuka Library
  - Ryan 03/05/20
- 2) Implemented Patrol State for Milcap Enemy type
  - Ryan 03/09/20
- 3) Implemented State Machines for Milcap Enemy which accept states and set the initial state to patrol
  - Ryan 03/09/20
- 4) Researched Triggers and Events
  - Ryan 03/09/20
- 5) Implemented Trigger radius and base trigger around the enemy
  - Ryan 03/09/20
- 6) Implemented a pursue state for Milcap Enemy which heads in the direction of the player instead
- 7) Designed new level system during group meeting
  - Merritt 03/05/20
- 8) Began implementing new level system
  - Merritt 03/05/20
- 9) Refactored controller
  - Merritt 03/08/20
- 10) Implemented new level system
  - Merritt 03/09/20
- 11) Created Attack State for Milcap Enemy
  - Ryan 03/10/20
- 12) Made three options for cursor models, made pin pod model
  - Kenda 03/05/20
- 13) Working on replacing cubes with models
  - Kenda 03/ 08-10/20
- 14) Assisted in designing level object system
  - Alan 03/03 and 03/09
- 15) Implemented state transitions between pursue and patrol Milcap enemy states
  - Alan 03/09
- 16) Integrated Yuka priority queue for multiple enemy types
  - Alan 03/09
- 17) Modified A\* function to allow enemies to pursue player
  - Alan 03/09
- 18) Modified Semaphores to lock player movement during enemy turn
  - Alan 03/09

### **Decisions**

- Implemented Yuka finite state machines
- Priority queue for multiple enemies
- Smaller texture sizes
- Refactored Level system
- Mass for health

### **What we learned**

- Yuka finite state machines
- Smaller texture sizes can improve performance
- Yuka Priority Queue for enemies