**Game Design Document**

**Deadline –** 10/04/2024

**Summary**

This is a third-person shooter game that aims to teach computer science students how to solve problems using algorithms. The player will be placed in different scenarios based on the map chosen, and they must solve puzzles to hack into systems and decrypt codes to solve certain problems.

**Minimum Viable Product**

* Completed Main Menu
* Contains two maps:
  + Forest
  + Farm
* Given a default weapon
* Given hacking tools
* Players rewarded with points after completing a task
* Difficulty increases as the game progresses, aka harder algorithms.

**Requirements fulfilment**

* Gameplay
  + Design Pillar: Education, puzzle-solving, first-person shooter
  + Core loop: Exploring the map, solving problems, game progression
* Game Elements
  + Post Processing
* Assets
  + There will be no background music, only environmental sounds
  + 3D models include:
    - NPC
    - Player
  + Link to UI assets: <https://www.figma.com/file/duEVpWMLZbyKoJcHdbC4wE/Algorithm-Adventure-Wireframe?type=design&node-id=0%3A1&mode=design&t=wjrqHQc4aflFT75T-1>

**Game Elements Diagram**

* Dynamics
  + Trade-offs
  + Feedback
  + Learning
* Mechanics
  + Shooting
  + Hacking
  + Puzzles
  + AI
  + Loadout System
  + Score System
* Components
  + NPCs
  + Player
  + Small attention to detail
  + Weapons

**Version Control**

**Link to GitHub:** [**https://github.com/fali0909/AlgorithmAdventure**](https://github.com/fali0909/AlgorithmAdventure)