**Algorithm Adventure GDD (Game Design Document)**

**Deadline**

10/04/2024

**Summary**

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

**MVP**

**Deadline:** 29/02/2024

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

**Gameplay**

**Design Pillar:**

* Educational
* Puzzle-solving
* First-person shooter

**Core Loop:**

* Exploring the map
* Solving problems
* Game progression

**Mechanics:**

* Shooting
* Hacking
* Puzzles

**Dynamics:**

* Trade-offs
* Feedback
* Learning

**Art**

This is a 3D world space. The game will use the Universal Render Pipeline and Post Processing to give more realism and better special effects.

**UI, Systems & Options**

**UI –** The UI will look something like this:

A screenshot of a video game

Description automatically generated

**Link to Wireframe:** <https://www.figma.com/file/duEVpWMLZbyKoJcHdbC4wE/Algorithm-Adventure-Wireframe?type=design&node-id=0%3A1&mode=design&t=wjrqHQc4aflFT75T-1>

**Summary:**

* Instrumental music is played in the main menu (not when in game).
* Instrumental music is played in game (depending on the map).
* Instrumental music changes depending on the situation the player is in.

**Analysis**

**Technical Analysis**  - Experimental features include:

* AI
* Loadout System
* Score System

**Version Control**

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

**Target**

**Target Audience:** Computer science students

**Target Device –** PC