# GAM 495 Course Artifact Metadata Sheet

**Part I: Original Artifact**

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| Artifact Name: | Maze Runner | | |
| Original Course or Origin: | GAM 312 | Date Completed: | 4/29/19 |
| Artifact Description: | | | |
| A game where the player races against AIs through increasingly larger labyrinths. The first to make it through and pickup the item at the end wins. The AIs are not very sophisticated, they do not have to be because the player does not get a good look at them in the maze. The AIs are not aware of the maze, they are given a list of target points that they randomly travel to and one of the targets is at the end of the maze. The maze is also simple, it was created by importing a 2D maze image into Blender and extruding it into 3D. The pickup item at the end of the maze was created in 3ds Max. | | | |
| Keywords: | Unreal Engine 4, Puzzle, Race | | |
| Tool(s) Used: | Unreal Engine 4, Blender, 3ds Max, Visual Studio | | |
| Skills You Hope to Highlight: | | | |
| I hope to highlight my ability to create a game in UE4 using C++. I want to highlight the functionality of the AIs because, although simple, it is reasonably scalable. | | | |

**Part II: Refinement Plan**

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| Proposed change(s) to create a polished artifact: | | |
| First, update the UI. Like most of the games I have made in UE4, the UI is barebones. Second, replace the static maze objects with a system that generates a maze dynamically. The dynamic maze generator needs to avoid creating walls on top of target points, and it needs to update the nav mesh after the maze is generated. | | |
| Format of your original artifact (include link or zipped attachment for artifact files) | Unreal Engine 4.24 C++ project (originally UE4.18)  <https://github.com/Heros-Tempus/Maze-Runner> | |
| Indicate which components your revised artifact will demonstrate. | | |
| ☐ Game Engine Mastery | | ☐ Game AI |
| ☐ 2D Graphics | | ☐ Game Physics |
| ☐ 3D Graphics | | ☐ Complex Logic Problem Solution |
| ☐ Graphic Interface Design | | ☐ Other |
| Indicate how your proposed changes will showcase your relevant knowledge, skills, and abilities. | | |
| Game AI is already part of the artifact, as well as complex logic problem to a degree. The dynamic maze system would also represent a complex logic problem, a problem which I sidestepped when I initially created the artifact. Extruding a maze from an image was a clever workaround, but a clever workaround is not as suitable for a portfolio artifact as a proper solution.  Updating the UI is an opportunity to showcase graphic interface design and 2D graphics.  Game engine mastery is a nebulous thing to demonstrate, but building a game with a game engine is a good place to start. | | |
| Instructor Feedback: | | |
| *This area for use by the instructor.* | | |