**CSS 497 Abstract Form**

**Name**: \_Davion Li\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Faculty Advisor**: \_Kelvin Sung\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

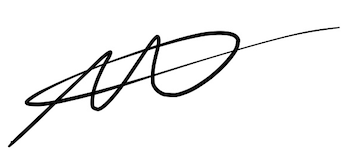
**Quarter/Year**:\_\_Summer/2023\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Title**:\_\_Dive the Adventure of Underwater \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**The abstract should be limited to 200-400 words describing the nature of the project and the results obtained. The abstract is due prior to submission of your final report to your faculty advisor**.

| This summer, four students and I decided to develop a game for our capstone project, a 2D underwater horror adventure game for PC and mobile devices. Before that, I was worried about the program. We only had about two months to develop a game from scratch, and to make matters worse I had never had game development experience. I had only taken a class on game engine development taught by Kelvin Sung. At the same time, we set big goals at the beginning. We wanted to develop seven levels, six types of enemies and three types of weapons.  Later, in weekly meetings with teachers and other development groups, we realized that we needed to develop our goals in more detail by making them into tasks. this greatly helped us to manage our time by letting us know that the goals we had started with were not going to be accomplished, and we cut back on our goals.  Another challenge is that our game needs a lot of art materials, such as background images, decoration sprite, and enemy sprite. this will cost us a lot of labor and time. Luckily now generative AI helps us to solve this problem. We use ChatGPT to help us generate suitable prompts, and then input the prompts into MidJourney to generate images. We can generate a large number of images in a very short time and select the ones that meet our requirements among them.  What impressed me most about the whole project was the design of the game UI especially for mobile. Our original design used two joysticks to control movement and aiming, and the player needed to aim and then click the fire button to attack. The controls were not smooth for mobile players. After the play test, we received feedback from players. We decided to merge the aim and attack buttons and optimized the movement system. We are very satisfied with the result.  Overall, the results of this program exceeded my initial expectations and allayed my concerns. We had a really perfect team with members who encouraged and helped each other. Many thanks to Prof. Kelvin for his guidance and help, without him, our project might not have been completed as well as it was. This time we experienced the whole life cycle of a project, which will help me a lot in my future job search and in the industry. |
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**Student Name**: \_Davion Li\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Signature**:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Faculty Advisor**:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Signature**:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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