AI Art Game - Project Report

Created by Ian von Pechmann, Ian Stewart, Nicholas Miller, Zach Remer, Stephen Cowan, and Andrew Friery

Project Description

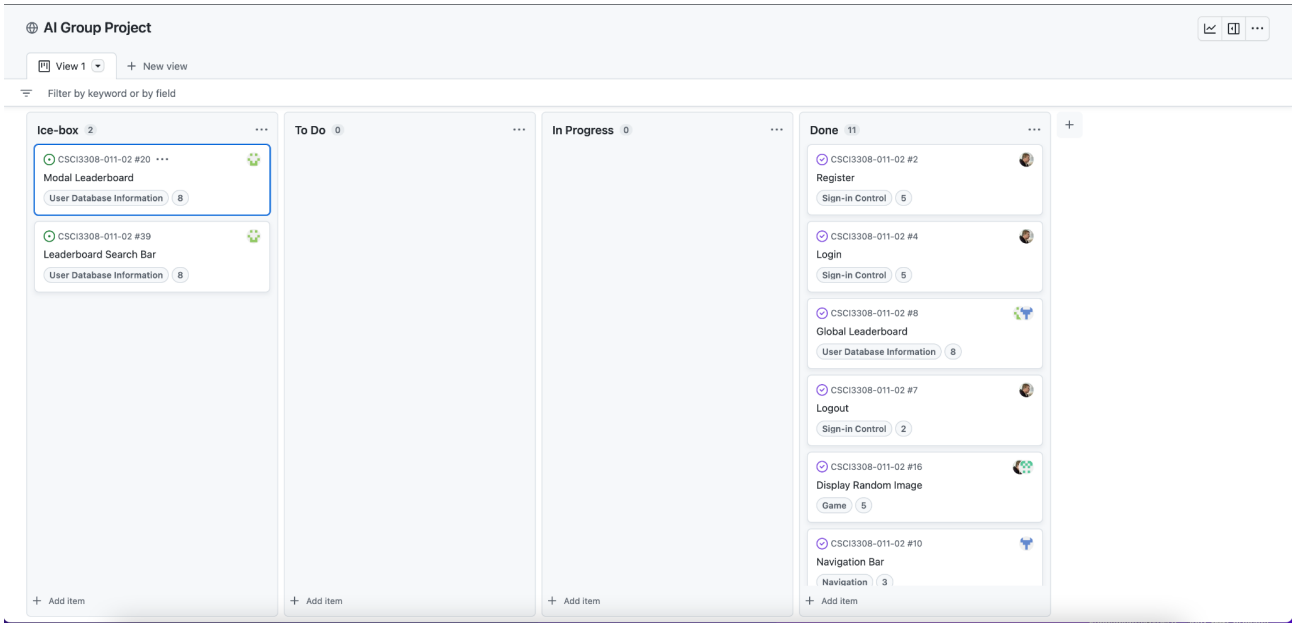
In today's world, Artificial Intelligence is more advanced than ever. AI can write convincing articles, compose beautiful music, craft realistic deep fakes, and much more. AI is extraordinary, but can it successfully mimic a human's work to the point that the two are indistinguishable?

In this game, you will be tested on whether you can distinguish between art created by a human and art created by AI. You will be presented with an image and buttons to designate the art as real or AI-generated. If your choice is correct, then you will be presented with another image and your score will increase by one. If you are wrong, then the game is over. Your final score for the game is how many images you correctly guess before choosing incorrectly.

In addition to the game, our website contains a user stats page where you can see your high score and total images seen. There is also a leaderboard page where you can compare your scores to the top scores from all users in the database. Outside of the user experience, there is an admin page accessible only to people with the proper permissions that allows viewing and modification of the database.

Project Tracker - GitHub Project Board

Link: https://github.com/users/AndrewFriery/projects/2/views/1



Video

https://streamable.com/5s67pw

VCS

The Git Repository: https://github.com/AndrewFriery/CSCI3308-011-02

Contributions

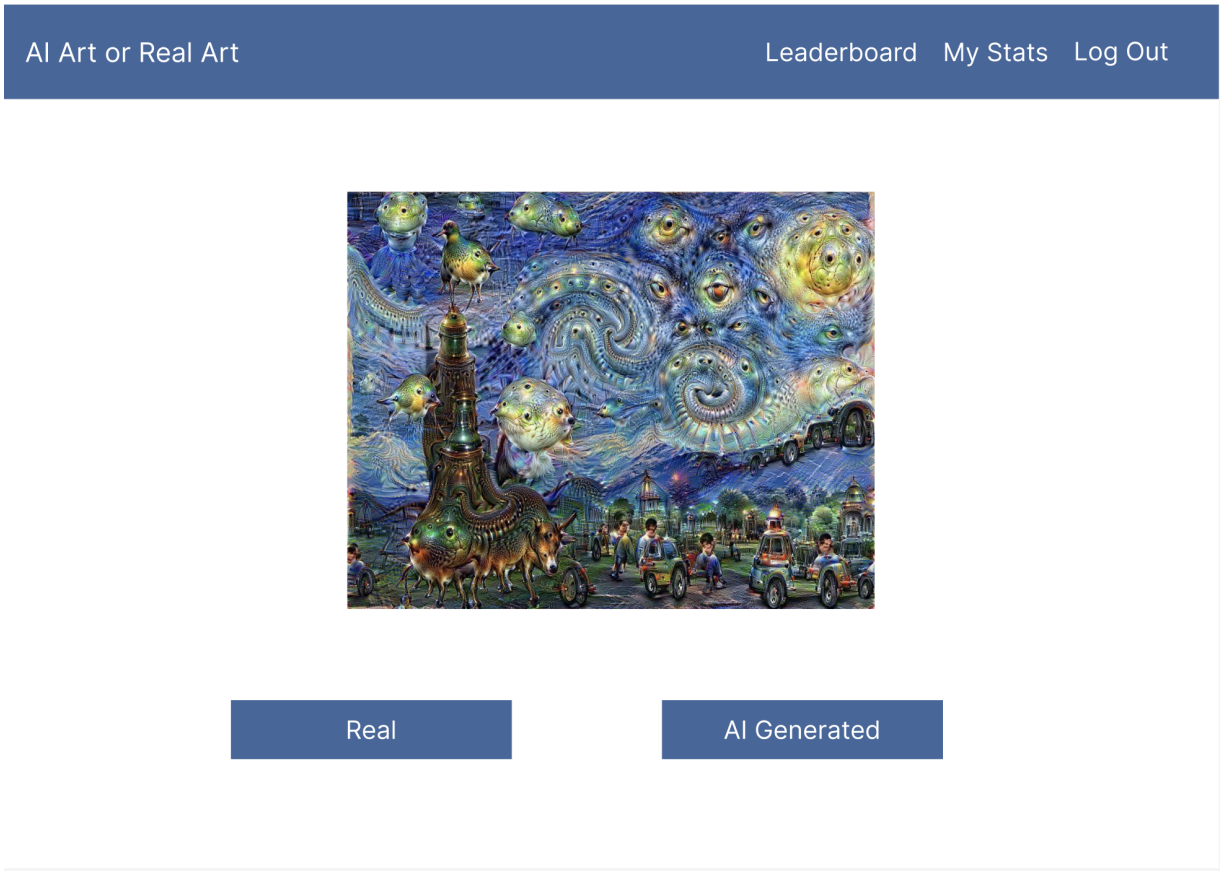
Zach Remer

My main job was working on the leaderboard page. I did the front end side of it to populate it dynamically so the code wasn't jumbled. I also had the job of styling the leaderboard page so it was visually appealing to the eye. On top of that I had fixed

some redirecting issues on the login page and register page. I also created the messages to more properly display on those pages.

Ian von Pechmann

I designed the wireframes for the project in Figma. Pictured below is my wireframe for the home page.



I also worked with Zach Remer on the leaderboard page. To be more specific, I coded the API call for the leaderboard in index.js, added user dummy data to the insert.sql, and added the ranking column to the EJS leaderboard page. I also contributed ten images created by AI and ten created by humans to our image database.

Ian Stewart

My main job was the stats page. I implemented what was in the wireframe with an API call and some bootstrap. We decided as a team to get badges on the page so it would

not look so empty, which I implemented. I also did some of the CSS by getting the background image, blurring it, and updating the text so it could be seen across the webpage. Finally, I contributed ten AI images and ten images made by a human to the static database.

Nicholas Miller

I worked on a lot of logic behind how the game functions and helped make the CSS consistent and good between all pages. As for the game logic, I implemented the logic behind the buttons on whether to increment the score or end the game, updating the user's database for images seen and highscore if needed, and rendering the lost page. As for the CSS, I went through the whole project and made everything consistent with the blurred segmented page elements.

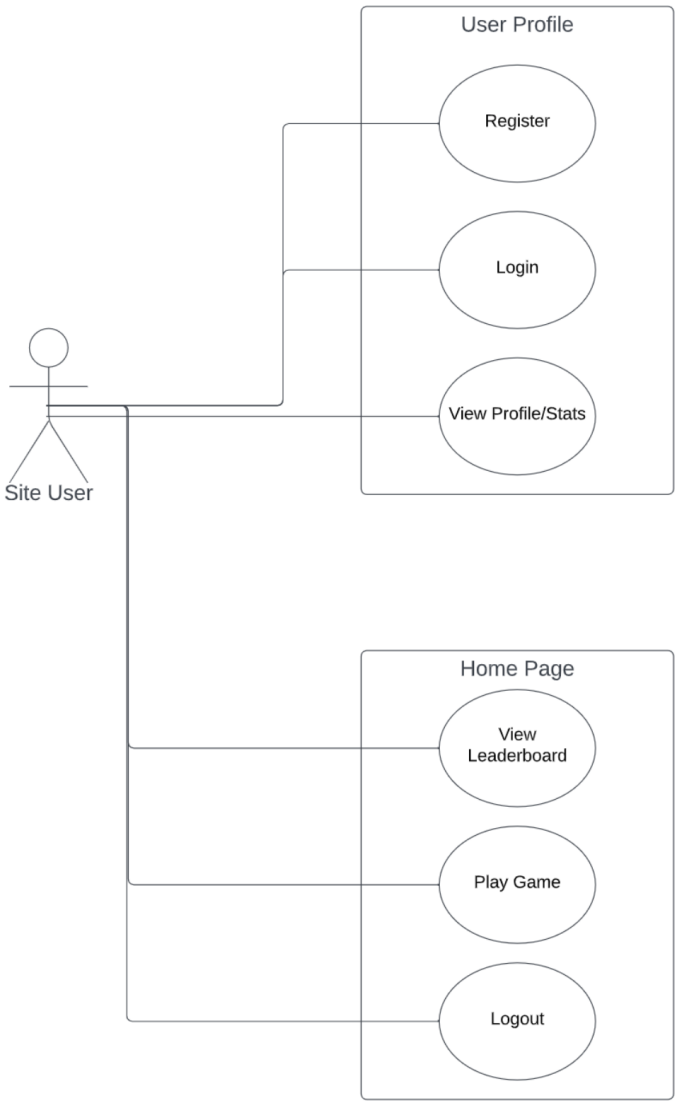
Stephen Cowan

I imported a lot of code from previous labs in order to create the directory structure, the navbar, and the login/register functionality. After this, I worked with Nick on the game page. Specifically I created the call to our database and assets needed to generate a random image on the page. Also I created the score counter for the user's current game. Lastly, I made all of the admin functionality. I designed the pages for this and wrote the functions to delete a user or picture from the database.

Andrew Friery

The page that I worked on for the project was the home page. I was able to use code from previous labs as a template and modify it to what I wanted. I spent a good amount of time on making sure the images and the text on the page looked just right, as it's the first thing you see when you first log in. I also did the deployment of the site on the school's network, and at the beginning of the project I did a basic use case diagram. Finally, I made the presentation and the architecture diagram.

Use Case Diagram



Test Results

The main kind of testing we performed was end-user testing. We had a couple of our friends go through everything on the website and made changes if they encountered any bugs. As for the login and registration, they found an exploit where the user could submit the page without entering a username or password. We fixed it so now the username requires at least one character and the password needs to be at least 8

characters long to submit the page. As for the game, the buttons worked, the score updated, and the information was stored in the database correctly. One issue one of them ran into was that if you lost your first game with a score of zero, the stats page would still say that you need to play your first game, so we fixed it and now our program works as intended. Another issue one discovered was that, when you delete an image from the admin page, the “you lost” page displayed the incorrect image, so we went in and fixed this issue as well. Finally, they could navigate to the leaderboard page and see their username and score, which was properly sorted by highscore. Now, after further testing, our page works as intended.

Deployment

Link: csci3308.int.colorado.edu:49163/login. The project can also be deployed using a docker container and LocalHost.