

# CS 408 Project Charter: Battleship Recreation

## Problem Statement:

Finding someone to play a board game with you isn't always easy, even in the case of Battleship, which only requires one other player. Our application will solve this problem by creating both a single and multiplayer version of battleship. The single player version will have an AI, with both easy and hard modes, that allow you to play alone. The easy and hard mode will allow you to practice and gradually get better so that you can beat harder modes. You can also select a multiplayer option that gives you a key so that you can play with a friend. Furthermore, the game will have a chat function that allows you to communicate with the person you are playing with.

## Objectives:

- Create and host an online replication of the classic board game, Battleship.
- Make the web application function exactly as the board game should.
- Design an artificial intelligence to play solo against with an easy and hard difficulty.
- Design a multiplayer system that anyone can join and play.
- Provide a way for friends to play together without interference.
- Create a chat for players to chat with each other.

## Stakeholders:

- Developers: David Wood, Eric Vondrak, Alexander Ferrard, Ayush Patel
- Users: Any person who would like to play Battleship against an artificial intelligence or another person.
- Project Coordinator: Yi Sun
- Testing Team: Unassigned as of now.

## Deliverables:

- A front end web application that allows players to play Battleship over the web using Javascript.
- A Node.js backend server to handle client interactions.
- A MySQL database to store player information for statistics.