



# Super Mario Covey.Town

Devanshi Shah, Mihir Dontamsetti, Kevin Andrews, Mathias Tankersley

Northeastern University

## Our Feature Overview

Covey.Town, esteemed for its tranquil virtual setting, invites users to explore its singular landscape, fostering interaction and classic gaming experiences such as Tic-tac-toe. Notably absent are single-player, platformer, or enemy-AI games. In response, we proposed the introduction of Super Mario Brothers into Covey.Town.

Our envisioned feature entails immersing Covey.Town users in the revered world of Super Mario Brothers. Participants will navigate Mario's iconic landscape, engaging in combat with adversaries while traversing the map. Furthermore, a centralized leaderboard tracks and displays high scores achieved across Covey.Town.



This innovative addition not only offers users a chance to relive a cherished classic but also fosters social competition.

Given the widespread familiarity and enduring appeal of Super Mario Brothers, its inclusion in Covey.Town is poised to resonate with a diverse audience spanning various age groups.

The integration of Super Mario Brothers into Covey.Town not only enriches the platform's gaming offerings but also reinforces its commitment to facilitating social interaction within a virtual environment.

## Important Links

[Demo Site](#), [Source Repo](#)



*Mario jumping on top of a Goomba. This action will result in the death of the Goomba.*

## Future Work

In our ongoing efforts to elevate the immersive experience of Super Mario Brothers in Covey.Town, we are committed to introducing dynamic enemy behaviors.

Instead of standstill goombas, this version would have goombas that are able to walk in one direction until they bump into an obstacle and turn around, this increases the level of difficulty for the player.

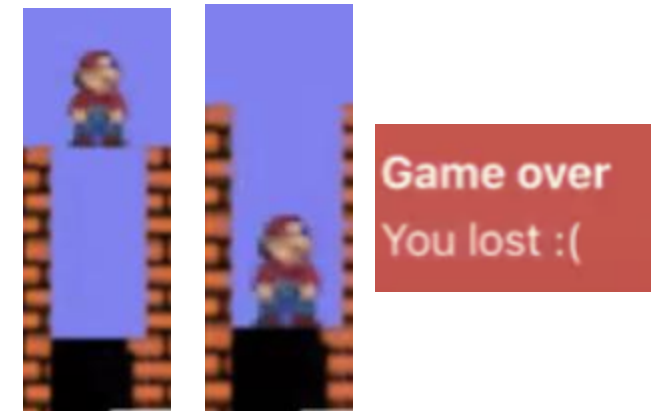
Additionally, future work may include a Scoreboard so users can track their progress and other best-performing players. We think that maintaining a scoreboard/leaderboard of the highest scores across all players in Covey town would help bring out the competitiveness that users may enjoy and add to the social aspect of this game.

## Our Technology & Stack Design

We implemented the Mario Game feature in the existing Covey.Town codebase. Each Mario Game area is represented as an "object" in the tilemap. Each Mario Game Area is displayed as a .jsx element containing a Phaser game.

The Mario Phaser Game and the corresponding sprites use a MarioAreaController which communicates between Covey.Town, the Phaser Game, and an internal representation of the game called MarioGame.

All actions performed by the user gets communicated to the MarioAreaController which then modifies our internal representation of the game, telling the Phaser game what changes to make in terms of the sprites of the characters.



*When Mario falls into a death block, he takes damage. If he has taken damage 3 times, the Game Over screen will appear.*