Capstone Project: algoRythms

Statement: A game that gets you into the rhythm of solving algorithms in pairs

Tech Stacks:

1. Node
2. Express
3. React
4. Redux
5. Firebase
6. OpenTok
7. CodeSandBox
8. Material UI
9. Three.js

MVP – Tier 1

* Users should be able to make an account
* **Practice problems through pair programming –** CodeSandBox (integration, live share)
  + Will look into Docker if time permit\*\*\*
* Shared screen/ same editor during the process
* Earn points for completion of problems.
* Implement basic web security
* Securing route
* **Integrate OpenTok – voice communication**

Tier 2 Part A

* UI/UX
* Implement web security
* CodeSandBox Improvement features – add more problems/test cases/freeze editor
* **Pair programming with REACTO – Video Session - OpenTok**
* Timer to switch up roles. One person’s mic is muted, and other person explains. One navigator/One driver.
* Switch up every 5 or 10 minutes features

Tier 2 Part B

* No Guest - ( Some kind of homepage to redirect them and ask to sign up )
* User Profile
* Level up based on earn points/completed problems.
* Continuous Integration Deployment (CI/CD)
* Repeat the REACTO Process prompts

Tier 3

* Emojis for the muted person to interact with navigator
* Screen to draw diagrams for examples ?
* Ranking up will have animations (3D / Three.js)
* Unlocking coloring themes/bonus with ranking up
* Home/Landing Page will have nice 3D or Three.js animation
* Share their process/ and contribute problems – Share their profile if possible

Tier 4

* Coding challenges – weekly contest with timer to solve an algorithm or debugging.
* Compete with each other with some kind of ranking/face off.
* Pair programming will increase difficulty level.
* Contribute problems