SoGnar - The App - CS Field Session Proposal
Austin Dyer
Colorado School of Mines Director Of Outdoor Recreation

- Company background:
    - *SoGnar Technologies LLC* is a newly formed business focused on making outdoor fitness more engaging through gamified technology. Founded by the Director of Outdoor Recreation at Colorado School of Mines, the company blends a deep understanding of user motivation, cycling culture, and adventure recreation with innovative digital design. Our mission is to encourage people to stay active by turning real-world rides into fun, interactive experiences through mobile app development.
- A description of the work to be done:
    - The team will design and develop a mobile application called *SoGnar – The App*. This app transforms fitness tracking into an interactive game. Riders will use their phones to map and track their rides via GPS. As they cycle along designated routes, they will collect digital “coins” placed along the trail. These tokens can then be used to customize an avatar that competes in in-app mini-games, challenges, and social competitions.

    The work will include:

    - Designing the app architecture, including GPS mapping, token placement, and user ride tracking utilizing Xcode and Swift programming Language.
    - Creating a visually appealing and intuitive UI/UX for the mobile experience.
    - Developing avatar customization features and simple in-app games.
    - Building backend infrastructure to support user accounts, coin logic, and gameplay progression.
    - Implementing basic social features like leaderboards, friend challenges, and achievements.
    - Testing the app with real users in collaboration with Colorado School of Mines Outdoor Recreation Center, Yeti Clycling employees, Commencal Bikes - Golden employees, and more
- Any desired skill set for the students (but remember that students are expected to learn new technologies/languages as part of the course)
    - Mobile App Devlopment
    - GPS/location-based tracking and mapping APIs
    - UI/UX design principles and prototyping
    - Game development basics
    - Backend Devlopment
    - Preferred that students work on this project have an Iphone and access to a Macbook desktop or laptop

- Preferred team size. Probably a range, we prefer projects that can support at least three students.
    - 3 to 5 students or more: The scope and interdisciplinary nature of the project (mapping, gaming, UI/UX, backend services) makes it well-suited to a larger, collaborative team.
- (optional) Whether there is a potential to offer student(s) an internship at the end of the course
    - Yes,.there is potential to offer internships or ongoing collaboration for one or more students who demonstrate strong skills and interest in the project. These opportunities would focus on bringing the MVP to launch and expanding features post-project.
- Location where work should be performed. Keep in mind that Fall session students may find it difficult to work off-campus due to their other academic responsibilities. *Note*: If you would like students to work on-site, we ask that you pay mileage (one way from Golden to your location, assuming students carpool). This minimizes out-of-pocket expenses for students.
    - Work should be performed on campus at Colorado School of Mines or remotely.
    - As the sponsor is based on campus (Austin Dyer, Director of Outdoor Recreation), regular in-person check-ins are possible and encouraged, but no off-campus work is required. Virtual meetings can also be arranged depending on student schedules and team preferences.
- I would like students to submit an NDA and an IP agreement