Mobile Carbon Footprint Tracker Application

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About Us

Technicology is a company that incubates and accelerates start-up companies that focus on sustainability. We have developed Footprint, a community-based carbon footprint tracking app. Footprint allows individuals to calculate their carbon footprint. Users then join teams to complete challenges as they reduce their carbon footprint. The app helps users learn about offset opportunities via a marketplace and newsfeed. Users can also engage in further activism to push for changes in society's sustainability culture. Footprint focuses on two target markets - it allows any individual across the world to sign up and make a team, and it also has an option for corporations and organizations, which allows companies to influence their sustainability culture in a similar fashion to the Global Corporate Challenge for fitness.

Project Summary

Footprint needs to be redesigned for use at scale. Individuals across the world want to contribute to reducing greenhouse gas emissions - over 60% of Americans, for example, are concerned about climate change. However, few people understand their individual contributions to climate change, and they do not know how to make an impact in their communities. Often, the fight against climate change seems hopeless without sweeping legislation or action from the oil majors to reduce their impact. In the United States, the Citizen's Climate Lobby, a group of over 100,000 members, works to lobby legislators to address climate change, but individuals in this organization and others lack an opportunity to act on climate daily in their personal lives aside from political activism.

Students would focus on editing the design of the existing Footprint set-up via an ideation session with the founders. The team would then focus on 1) enhancing flow and adding features, 2) coding the app for use on iPhone and Android platforms, and 3) creating data visualization of user trends. The team will have a web-based prototype to assess and use as a go-by prior to delving into the mobile app development.

Details

Desired features: The following features are desired for the final product, though a work plan with achievable goals can be negotiated between the team and the Footprint representative. The Footprint app needs to be able to accommodate growth of hundreds of thousands of members. The app also needs to have a functional marketplace featuring sustainable goods and services and carbon offset options with a way to track sales in order to get a percentage of

profits off goods featured in our marketplace. The app must allow for visualization of an individual and team's carbon footprint and the components that add to your total carbon footprint. The app also must show a leaderboard within a company/organization/community as well as a leaderboard of all companies. The back-end of the app needs to have easily-analyzed metadata that shows different components of a user's carbon footprints as well as what challenges/activities they undertake to reduce their carbon footprint so that trends and preferences can be determined. The app will also need to incorporate mobile advertisements as well as secure payments. Other features can be brainstormed and pitched by students if desired.

Stretch Goals: Location-tracking for automatically calculating transportation-related emissions is a useful feature, but not mandatory.

Team size

3-5 preferred.

Technologies and Skills Used

React Native, flux, deploying web views, or native-specific builds (can consult/discuss)

Javascript; database modeling, trending, and visualization; developing backend logic with existing APIs, and building a front-end.

Student benefits

Students get experience working with a start-up company and will have access to our network of investors and partners. Upon completion of the semester, students will have the opportunity to continue with Footprint as part-time interns throughout their next semester, giving work experience as well as networking opportunities.

Students will also get training in how to “pitch” a start-up company and how to create a pitch deck.

Students can work remotely on this project. Technicology is based in Houston and works primarily via teleconferences from across the world. Students can work flexible hours and via agile ways of working. Students will have ability to contribute ideas openly and freely to improve and innovate.

Footprint is looking for entrepreneurial self-starters for longer term roles. Paid opportunities could be created based on success of the app after launch and growth, and roles will be determined based on the user base built by the student and based on the student’s alignment with our core values of sustainability and climate action.

If interested, students can get experience in calculating the carbon footprint of different activities of day-to-day life.

With student permission, students may also get featured and quoted in news stories as the start-up gains publicity.

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