Project Name: TrashTag

Tagline: "If you can't take it, TAG it!"

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9/16/2025

Problem Description

Outdoor recreation areas such as parks, rivers, lakes, and beaches accumulate large amounts of trash. Many independent organizations and local governments spend time and resources trawling these areas looking for litter, debris, and dumping to clean up. Not everyone that visits these locations are capable or ready to pick up large amounts of trash. Some large litter and dumping requires planning and/or equipment for proper and safe removal. Many of these areas are also very large and clean up crews must walk great distances in search of any trash that must be picked up.

Solution

Provide the public a way of quickly communicating the scope and location of found litter, trash, and dumping to organizations willing and interested in clean up. A system where users can easily upload geotagged photos of litter or dumping, thus providing a map of areas to clean for the city, volunteer organizations, or even motivated individuals so the trash could be removed far more quickly and efficiently. The photos serve as easy visual identification of the trash as well as the scope of the problem. Over time, the data can even be used for public education or even city officials to dispatch people to problem areas as a preventative measure.

Key Features

- Quick Photo upload: Users can simply upload a picture. The image's geotag or the phone's location is used to determine where the image was taken.
- Map: Users can see a map of where tagged trash is near by.
- **Scope:** The images search to show how big the problem is. Users are also able to enter that information during image upload.
- Litter Hero!: Users earn points for each entry they clear from the map.

Market Potential

Who are the users?

Angela is a local resident that frequently visits the river. Most days she goes swimming there isn't any trash. Sometimes, however, she sees that someone has dumped tires, a washing machine, or maybe some mattresses. Angela would love to help, but she can't clear these items on her own and doesn't know who to call.

Who are the customers?

The San Marcos River Foundation organizes weekly and monthly clean ups with volunteers. The volunteers walk long sections of the river looking for trash. They would love to know about bulk dumpings before a clean up event so they bring the right amount of people and equipment.

Who are the stakeholders?

Natural areas can be delicate ecosystems and trash and litter is directly harmful to the plants and wildlife. Additionally, some trash can be dangerous to those using natural areas. Sharp glass and metal have injured many people. Fast removal of this trash benefits those that swim or recreate near it, and the flora and fauna that live in and around it. Environmental organizations and local governments are most interested in saving time and money with their clean up efforts. There are also homeowners with property along these and do not wish the trash dumped in their literal backyard for both aesthetic and property value reasons.

Competitive Landscape and Challenges

Competitors

There are no known competitors.

Challenges to overcome

Public outreach and education to install and use the application.

Conclusion

TrashTag puts power into the public's hands and lets them make an impact on their environment. Clean up organizations can laser focus their efforts on where the trash is. Our natural areas get cleaner faster making a better world for the plants, animals, us, and generations to come.

References

Texas Parks and Wildlife: "Report on the San Marcos River Taskforce"

(https://tpwd.texas.gov/publications/nonpwdpubs/san_marcos_river_taskforce/section_4.phtml)

Texas State University: The Meadows Center for Water and the Environment: "Litter Removal in the San Marcos River" (https://www.meadowscenter.txst.edu/research/stream-habitat-ecology/smr-litter.html)