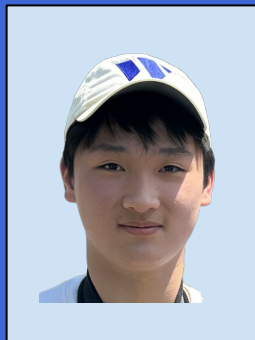


STOREFRONT ASSISTIVE NAVIGATION

Victor Tang



OVERVIEW

- **App Name:** StoreFront Assistive Navigation
- **App Description:** Provides precise latitudes and longitudes of the entrance of a store or building, allowing for blind or visually impaired users to more easily access the store/building.
- **Track:** Youth Individual
- **Category:** Civic Engagement & Justice

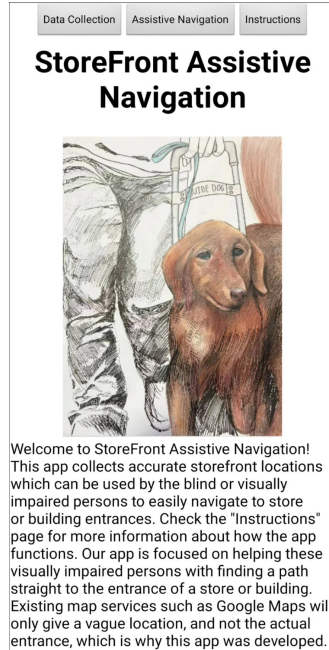


THEME

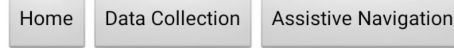
My app addresses a travel challenge of the blind and visually impaired (BVI). BVI often spend a decent amount of time figuring out where the entrance is during their independent travels, because existing map services (etc. Google and Apple) don't include precise entrance locations of stores or buildings. I was inspired to develop this app because I volunteer at Lighthouse Guild, an organization serving BVI. The app has two features: allowing volunteers to add precise entrance location of a locale into a database, and allowing BVI users search and navigate to the entrance of a locale available in the database.



INSTRUCTIONS



This is the Home Screen. You can access the Data Collection, Assistive Navigation and Instructions Screen



Instructions

Data Collection

- Step 1. Take a photo of the store entrance.**
- Step 2. Plot the location of the store entrance on the map accurately.**
- Step 3. Add the address, store name and any extra information. Please make sure the store name is accurate to the true name of the store. Also, Include any punctuation and spaces.**

Assistive Navigation

Enter the name of the store you would like to go to either by voice input or typing it out. If there is a corresponding store found in the database, the app will open Google Maps and start giving directions. If the store was not found in the database or the store was spelled incorrectly, there will be no result.

This is the Instructions Screen



This is the Data Collection Screen and is where you take a photo or select a photo from the gallery.

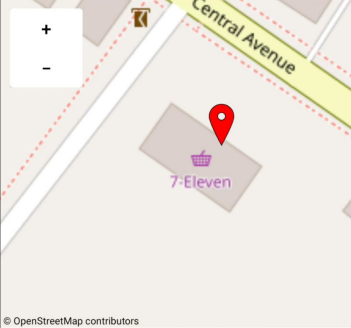


INSTRUCTIONS

[Home](#) [Assistive Navigation](#) [Instructions](#)

Entrance Location

Tag the accurate location of the entrance of the photo just taken on the map. Hold on a location for 3 seconds to plot a marker on the map. (If your location is not displayed on the map, please try again in a place with a better connection.)



© OpenStreetMap contributors

[Confirm Marker](#) [Redo Picture](#)

Here is where the exact location of the entrance of the store/building will be placed on a map. The Lat/Long of the location will also be saved.

[Home](#) [Assistive Navigation](#) [Instructions](#)

Confirmation



[Confirm!](#) [I'm not ready yet.](#)

This is a confirmation of the photo for the entrance

[Home](#) [Assistive Navigation](#) [Instructions](#)

Extra Location Information

800 Central Avenue

7-Eleven

Convenience Store

[Submit](#)

Here is where the address, store/building name and any extra information is added.



INSTRUCTIONS

Home Assistive Navigation Instructions

Thank You!

You may return to the Home Screen

Add more locations

This is the thank you screen after data collection is done.

Home Data Collection Instructions

Navigation

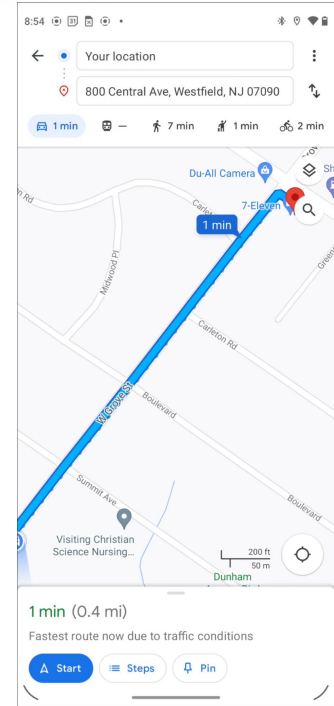
Location:



Enter Location Name (Add all punctuation and spaces)

Submit

Assistive Navigation screen, where it will ask you what store/building you want to go to.



Here are the directions to the store/building entrance from the user's current location in Google map.



LIMITATIONS

In 100 words or less, describe the limitations of your app and what people should carefully consider when using it.

Since this app relies on crowd-sourcing, so it requires volunteer for data collection, in addition, not all submissions to the app are 100% accurate.

Also, I plan to add a feature that lets users choose between separate locations with a same store name.



ACKNOWLEDGEMENTS

Please list the names of anyone who helped you with developing your app, and describe what type of help they provided.

- 2-week high school summer programming workshop at CUNY, for introducing MIT App Inventor as well as the Appathon.
- Lighthouse Guild, for the volunteer opportunity.

