

SmartTransit.AI: Leveraging my experience with Paratransit

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Project: SmartTransit.ai Accessibility



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Background

Paratransit Definition:

- Paratransit is a ride-share system that uses a small bus or van for individuals with disabilities who cannot navigate the public transit system.

Personal experience:

- I have experience with paratransit as I use it on my college campus to get to class.
- I am blind, and public transportation is my way of freedom and being able to get where I need to go.

Why is Paratransit Important:

- It is a safe and efficient public transit alternative that allows eligible riders to get where they need to go.



Overview and Goal of the Project

- **Goal of the Project:** Work with the lab to determine the accessibility of a Transit Scheduling Client Application
 - Make sure that the system being designed is *equitable* and can be *accessed well by people with different abilities*.
- **Transit Scheduling Application:**



- Clients book trips via client app, or a dispatcher books call-in trips via dispatcher app



- Recorded requests are assigned to vehicle runs
- This problem is hard to solve due to real world constraints



- Drivers serve the assigned run using the driver application

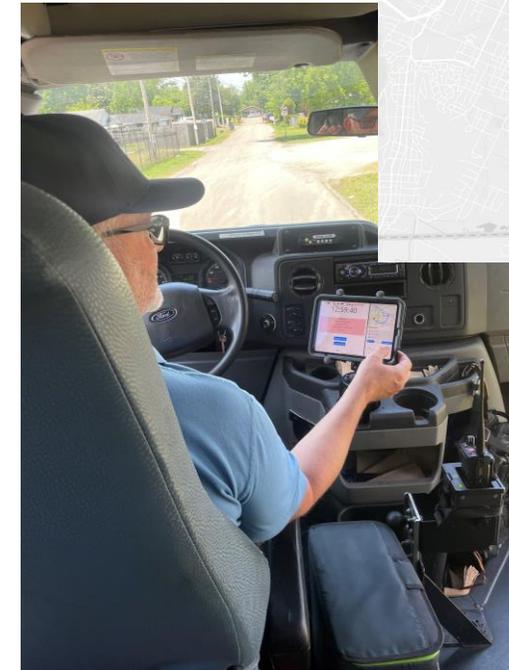
Pilot in Chattanooga

Pilot

- 27 days of service between 6/3-7/12
- 55 requests served
- 68 completed rides (average of 2.5 per day)

Ridership

- 45 individuals signed up
- 24 individuals took at least one ride
- Average of 2.8 rides per customer



CARTALINK



Experiences and What went well

1. I familiarized myself with papers from the lab and existing literature along with attended transit meetings so I could understand the problem well.
2. Once I understood the problem, I was able to interact with the scheduling application
3. I reviewed the application several times and gave my feedback in terms of accessibility. Some examples include:
 - Simple Design
 - Can be used on a computer and a mobile device.
 - I can successfully log in and book a round-way trip via the computer
 - The application was screen-reader friendly

Challenges, Lessons Learned, and Suggestions

Challenges

- Retrieving the One-time password for verification was difficult
- Changes had to be made to simplify the design for easy interaction

Lessons Learned

- I learned the importance of an efficient transit system and how that can be achieved with an easy-to-use client application for bookings

Suggestions

- The unhoused population could interact with the application via a computer at a public library
- Manuals could be made in different accessible formats for clients
- Driver application could be voice enabled instead of touch to minimize distraction

Acknowledgments and Conclusion

- I would like to thank Sophie for her mentorship and, of course, Dr. Dubey and his lab for this opportunity.
- I would also like to thank Reagan Williams, Gerilynn Pierce, and all the other interns who are here today.
- I would really like to thank you all for letting me have this wonderful opportunity.
 - It was my pleasure to be here to learn about working in the intersection of computer science and social sciences.
 - I really hope that I can learn from this and that this will help me in my future career of becoming a social worker who is passionate about equity, fairness, equality, and accessibility for people of all ages, races, and disabilities.
 - I hope my contributions towards accessibility of the application are successful.