

# Panther Carpooling & Parking

## Milestone 3



# Team Members

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- Hunter Smith — [jsmith2022@my.fit.edu](mailto:jsmith2022@my.fit.edu)
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# Faculty Advisor and Client

- Dr. Philip Chan — [pkc@cs.fit.edu](mailto:pkc@cs.fit.edu)



# Overview of Milestone 3

- ❑ Complete remaining profile tasks.
- ❑ Develop and test algorithm for carpool group recommendations
- ❑ Develop user interface for showing user carpool groups and allow users to create/form groups
- ❑ Develop and test real time tracking and route creation
- ❑ Expectations for Milestone 4

# Scheduling Page

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FIT Carpool Group Finder

UPDATE PROFILE DATA

Edit Schedule

Today

4/14/2024 - 4/20/2024

MONTH DAY WEEK

SUN

MON

TUE

WED

THU

FRI

SAT

8 AM

9 AM

10 AM

11 AM

12 PM

1 PM

2 PM

3 PM

4 PM

5 PM

6 PM

7 PM

8 PM

9 PM

10 PM

11 PM

arrival

arrival

Add Schedule

×

Is this an arrival or departure time to/from campus

departure

▼

Please Enter departure time range

4/17/2024 12:30:00 PM

📅

4/17/2024 1:00:00 PM

📅

Is this a repeating schedule?

☒

Repeat on days:

Monday,Tuesday,Wednesday

×

▼

Repeat until:

04/22/2024

📅

SAVE

This site is currently under construction by Austin Phillips, Hunter Smith, Jason Smith and Jacqueline Torres.

# Matching Algorithm

Matches users together based on Schedule, Location, and Preferences

Schedule: Range between arrivals, Range between departures.

Location: Shortest Possible Path between all users. TSP algorithm.





Preferences: Compares preferences of all members. Counts number of conflicts.

All three are factored into an overall score. A lower score is better.





# Matching Algorithm (Demo 1)

Test 1: Men arrive early, Women arrive late.

## Group Recommendation 2

Email	Name
 Bill@my.fit.edu	Bill
 Dave@my.fit.edu	Dave
 Fred@my.fit.edu	Fred
 Hugh@my.fit.edu	Hugh





## Group Recommendation 1

Email	Name
 Gail@my.fit.edu	Gail
 Ally@my.fit.edu	Ally
 Cass@my.fit.edu	Cass
 Ella@my.fit.edu	Ella





# Matching Algorithm (Demo 2)

Test 1: Men live east, Women live west.

## Group Recommendation 1

Email	Name
 Hugh@my.fit.edu	Hugh
 Bill@my.fit.edu	Bill
 Dave@my.fit.edu	Dave
 Fred@my.fit.edu	Fred





## Group Recommendation 2

Email	Name
 Ally@my.fit.edu	Ally
 Gail@my.fit.edu	Gail
 Cass@my.fit.edu	Cass
 Ella@my.fit.edu	Ella





# Matching Algorithm (Demo 3)

Test 1: Men allow eating/smoking, Women don't.

## Group Recommendation 2

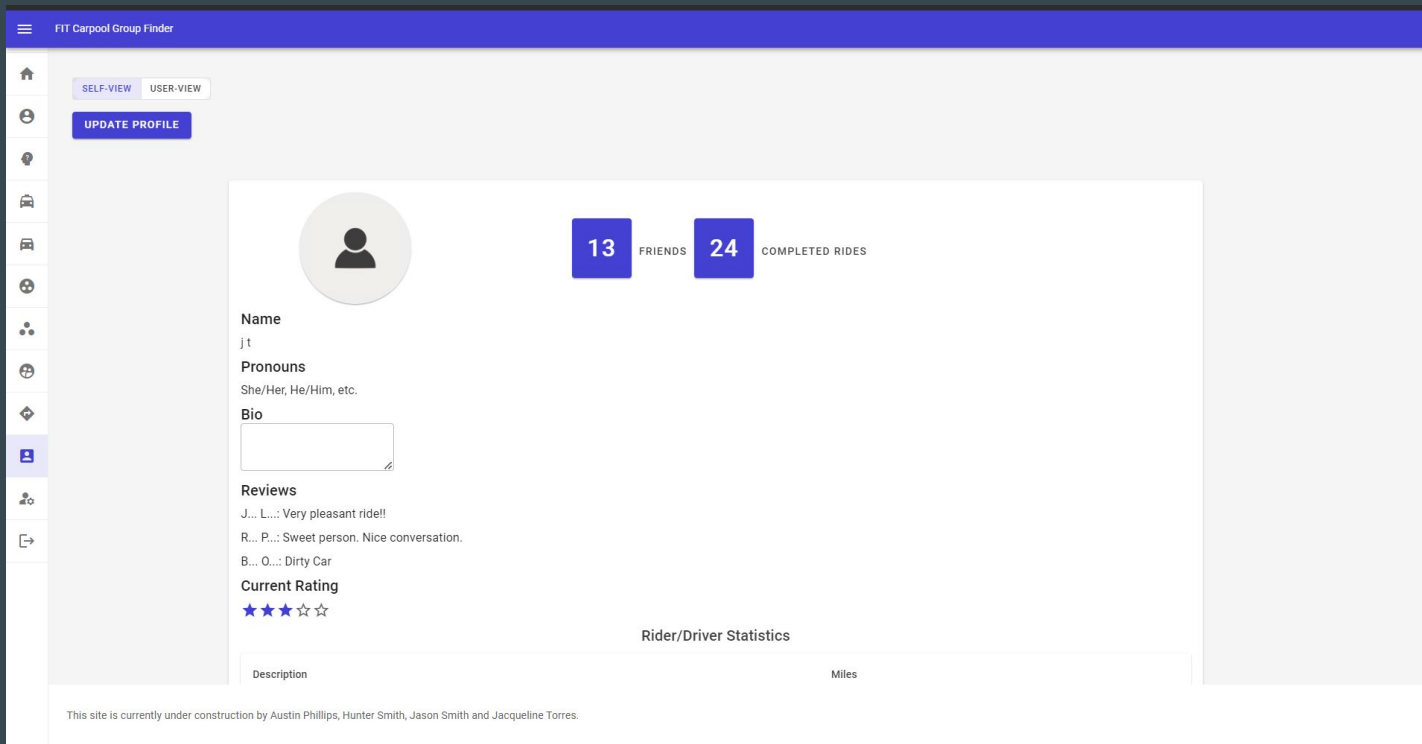
Email	Name
 Hugh@my.fit.edu	Hugh
 Bill@my.fit.edu	Bill
 Dave@my.fit.edu	Dave
 Fred@my.fit.edu	Fred

## Group Recommendation 1

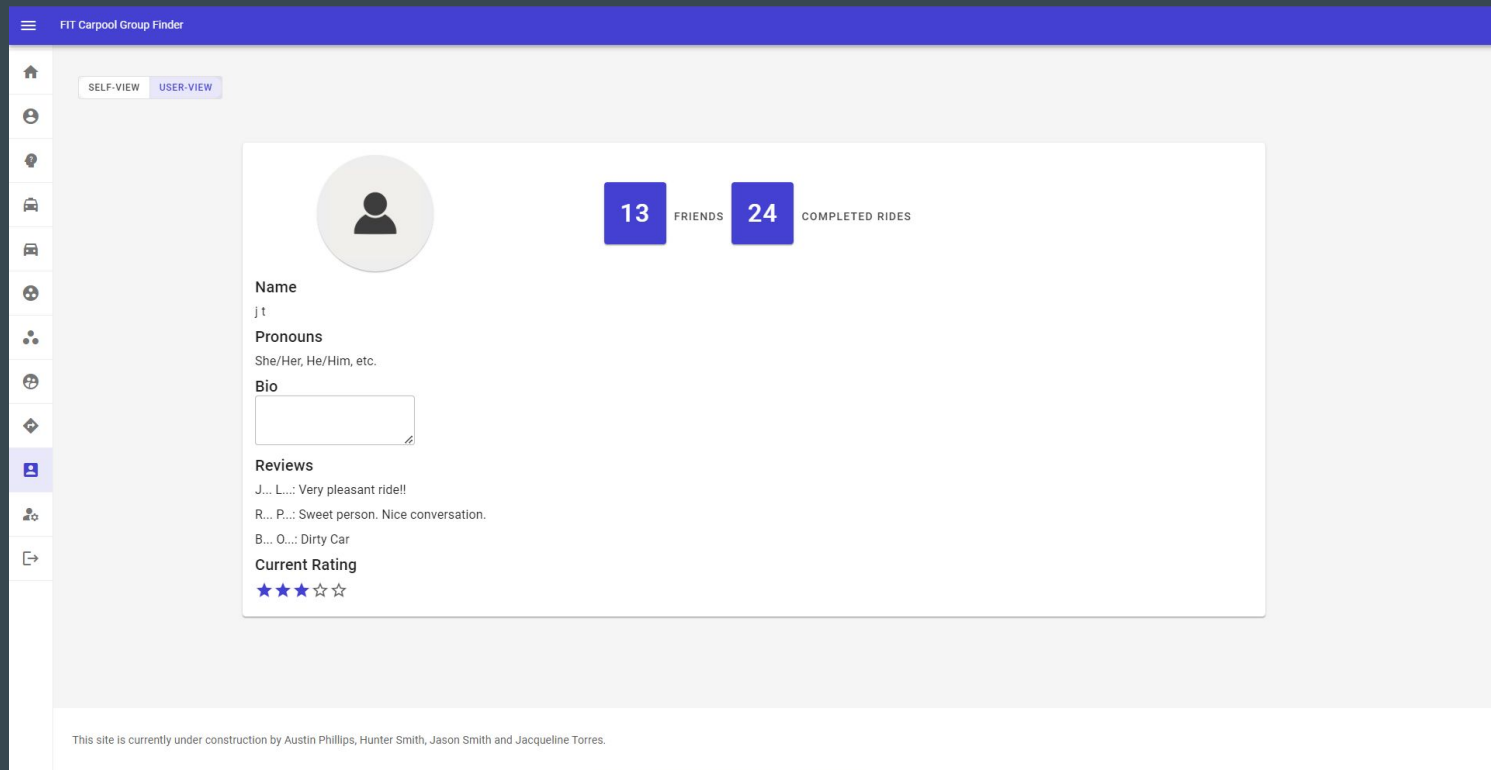
Email	Name
 Ally@my.fit.edu	Ally
 Cass@my.fit.edu	Cass
 Ella@my.fit.edu	Ella
 Gail@my.fit.edu	Gail



# User-Detail Page: Self (Long) View



# User-Detail Page: User (Short) View






# Group Recommendation Interface




- View name, profile picture, and role in carpooling group of recommended users
- “View User” links to a Short View of selected user’s profile information

The screenshot displays the FIT Carpool Group Finder interface. It features a sidebar with navigation icons and a main content area with two group recommendations. Each recommendation includes a table of users with their profile pictures, emails, names, and roles, along with a 'VIEW USER' button. At the top of each recommendation section are 'JOIN GROUP' and 'DENY RECOMMENDATION' buttons.

**Group Recommendation 1**

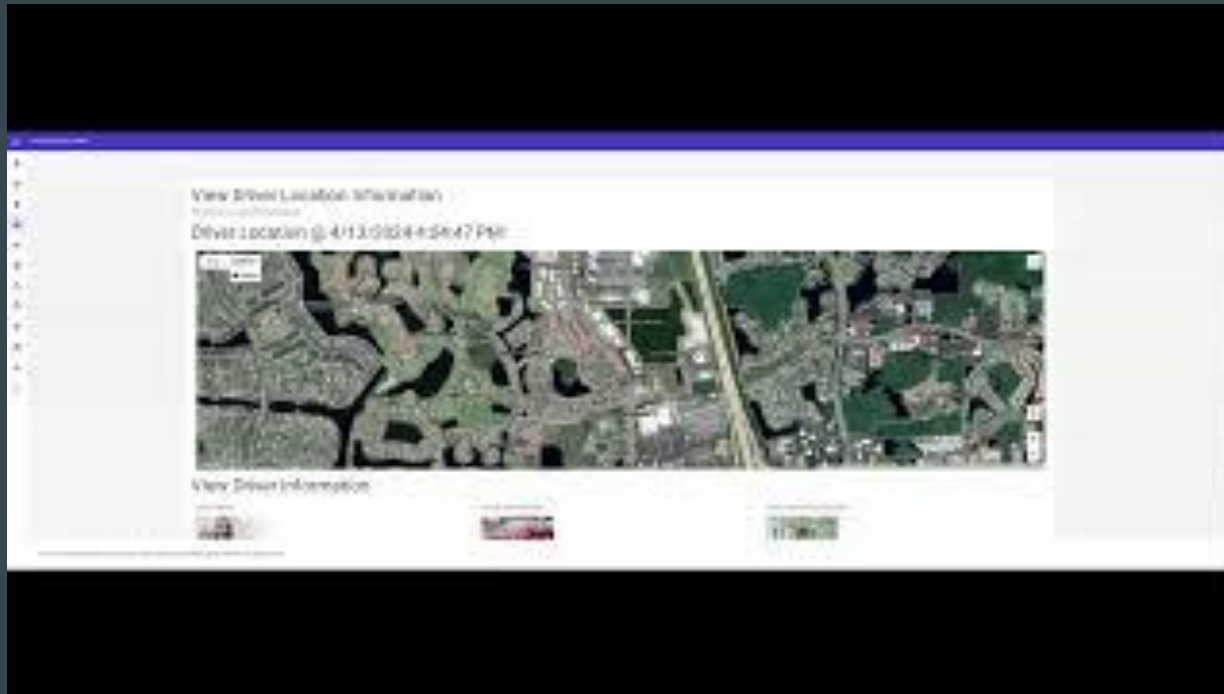
Email	Name	Role
 aphillips2022@my.fit.edu	Austin Phillips	rider
 admin@my.fit.edu	Admin Admin	driver
 j@my.fit.edu	j t	rider

**Group Recommendation 2**

Email	Name	Role
 jdriver@my.fit.edu	John Driverman	driver
 rrider@my.fit.edu	Ryan Rideman	rider
 arider@my.fit.edu	Amy Rideman	rider

[Demo Link](#)

# Driver Tracking Demo



# Progress Matrix of Milestone 3

Task	Completion	Austin	Jason	Jacqueline	Hunter	To do:
Complete remaining profile tasks.	90%	50%	50%	0%	0%	Add Markers on Google Maps Route Display
Develop and test algorithm for carpool group recommendations	75%	0%	0%	0%	100%	Balance the three metrics into one giant function. Test for >2 groups.
Develop user interface for showing user carpool groups and allow users to create/form groups	75%	0%	50%	50%	0%	Add functionality to accepting/denying group requests and integrate with the database
Develop and test real time tracking and route creation	75%	100%	0%	0%	0%	Provide Driver with the route after starting a trip

# Milestone 4

- Group Recommendation with difference scenarios;  
Same time different location clusters
- Develop and Test long and short views for user profiles
  - Long View is your profile view
  - Short View is another user's profile
- Develop frontend and backend for Finding Friends, Add and Remove Friends
- Interface for entering ratings and reviews
- Integrate accept and deny group recommendations into the database
- Develop frontend and backend for Rider confirmation and Cancel options

# Thoughts, Questions, Suggestions?

[View Site](#)