



# Collide

Your next best friend is just around the corner

# Team



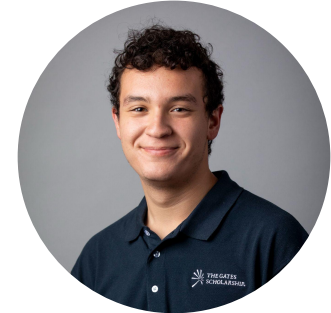
**Emily H.**  
CS (2024)  
Taipei, Taiwan



**Ekin T.**  
CS (2024)  
Houston, TX



**Enok C.**  
CS (2023)  
Leonia, NJ



**Christian F.**  
CS (2023)  
Wasco, CA

# The Problem

When transitioning to a new environment, **people find it difficult to make meaningful connections and are fearful of reaching out.**



# Our Solution

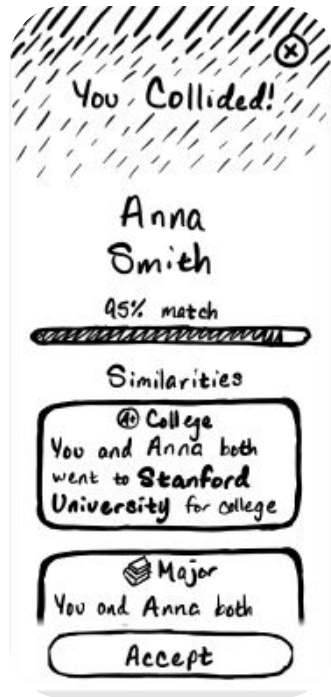
We want to solve this by **creating opportunities for people, who would have otherwise passed by each other, to stop and talk.**





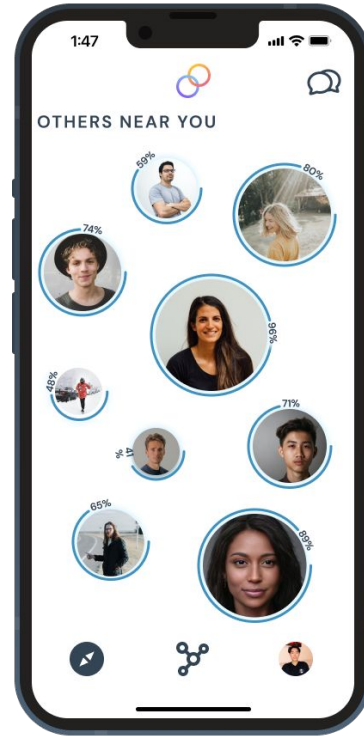
*Your next best  
friend is right  
around the corner*

# Our Journey



Low-Fi Prototype

User Testing



Med-Fi Prototype

Heuristic Evaluation



Hi-Fi Prototype

1

**Heuristic Evaluation**

2

Design Revisions

3

Prototype Implementation

# Heuristic Evaluation Thematic Summary



**Privacy**



**Clarity of  
System Status**



**Accessibility**



<b>Category</b>	<b># Viol. Sev 3</b>	<b># Viol Sev 4</b>	<b># Viol. (total)</b>
<b>H1: Visibility of Status</b>	<b>4</b>	<b>2</b>	<b>6</b>
H2: Match Sys & World	3	0	3
H3: User Control	3	1	4
H4: Consistency & Standards	0	0	0
H5: Error Prevention	1	0	1
H6: Recognition not Recall	2	0	2
H7: Efficiency of Use	1	0	1
H8: Minimalist Design	1	2	3
H9: Help Users with Errors	1	0	1
<b>H10: Help &amp; Documentation</b>	<b>3</b>	<b>2</b>	<b>5</b>
<b>H11: Accessible</b>	<b>4</b>	<b>1</b>	<b>5</b>
H12: Fairness & Inclusion	0	1	1
H13: Value Alignment	0	2	2

Category	# Viol. Sev 3	# Viol Sev 4	# Viol. (total)
<b>H1: Visibility of Status</b>	<b>4</b>	<b>2</b>	<b>6</b>
H2: Match Sys & World	3	0	3
H3: User Control	3	1	4
H4: Consistency & Standards	0	0	0
H5: Error Prevention	1	0	1
H6: Recognition not Recall	2	0	2
H7: Efficiency of Use	1	0	1
H8: Minimalist Design	1	2	3
H9: Help Users with Errors	1	0	1
<b>H10: Help &amp; Documentation</b>	<b>3</b>	<b>2</b>	<b>5</b>
<b>H11: Accessible</b>	<b>4</b>	<b>1</b>	<b>5</b>
H12: Fairness & Inclusion	0	1	1
H13: Value Alignment	0	2	2



Severity **3/4** Issues

# Heuristic Evaluation Examples

## *H1 Visibility of system status / Severity 3*

- a. On the “You collided!” page, users can click *x* in the top right to exit. **It is unclear whether the location sharing stops after clicking *x* or not.**
- b. Fix: Make it clear to the user whether the **location sharing stops** or not after clicking *x*

## *H13 Value alignment / Severity 4*

- a. One of the values of the app is **privacy**. However, **users have no collected way of knowing what type of information is being shared** and who can see it.
- b. Fix: Add an **information page** that shows what data is being shared and who is able to see it.

# Revision Methodology

Collide A9 Heuristic Evaluation Group Template ☆ 📄 ☰

File Edit View Insert Format Tools Add-ons Zotero Paperpile Help La--

100% Normal text Source San... 12 + B I U A

CS 147 Winter 2022: Assignment 9 (Heuristic Evaluation Group Template)  
Instructor: James Landay

## Heuristic Evaluation of Collide

### 1. Problem/Prototype Description

We evaluated Collide, an app that helps gen-Z and millennials, from college student new college graduates, make authentic connections with others in close proximity who otherwise would not have interacted with each other.

### 2. Violations Found

Task 1

- H1 Visibility of system status C
  - After clicking "Add to Network," the button does not change. Users may page and re-enter without knowing whether they already clicked the "Add to Network" previously.
  - Fix: Make the button react/change in some way to indicate which profiles users have already added to the network.
  - Severity: 2
- H1 Visibility of system status
  - After clicking "Add to Network," users receive a popup that says "Task completed!" However, users may be confused on what a "task" is.
  - Fix: Change the notification to a confirmation that the user has been added to the network.
  - Severity: 4
- H1 Visibility of system status
  - On the profile screen, it says Anna is "0.3 mi away." However, many users



Heuristic Evaluation Analysis ☆ 📄 ☰

File Zotero Edit View Insert Format Tools Add-ons Paperpile Help La--

100% Normal text Source San... 12 + B I U A

and 'click' gestures within the same task.

### Task 1: Find match nearby

#### H1 Visibility of system status / Severity 4

- After clicking "Add to Network," users receive a popup that says "Task completed!" However, users may be confused on what a "task" is.
- Fix: Change the notification to a confirmation that the user has been added to the network.

---

#### H2 Match between system and the real world / Severity 3

- At first glance on the "Others near you" screen with the bubbles, it is unclear what the 96% blue line around the user picture means.
- Fix: Add some type of context for first-time users that makes it clear this percentage is talking about similarity matching (without having to read the presentation).

#### H12: Fairness & Inclusion / Severity 4

- Problem Description: There is not a space for optional pronouns on the potential match profile.

- Moved things from **heuristic eval doc** to **team analysis doc**
- Ran through all of the fixes one by one, see which one's were **high severity** and **doable**



Severity **3-4** Issues



Major Design Revisions

As of 3/4/22

1

Heuristic Evaluation

2

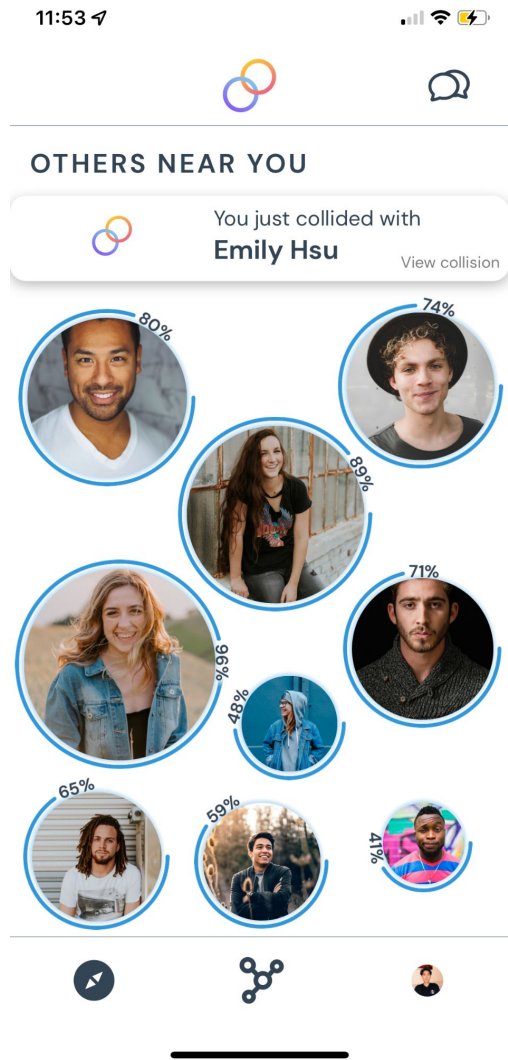
**Design Revisions (Per Task)**

3

Prototype Implementation

# Task 1

Befriend someone near you with similar interests





⚠ VIOLATION 1.1 – Severity 4

# Not clear what “Add to Network” means (H2)

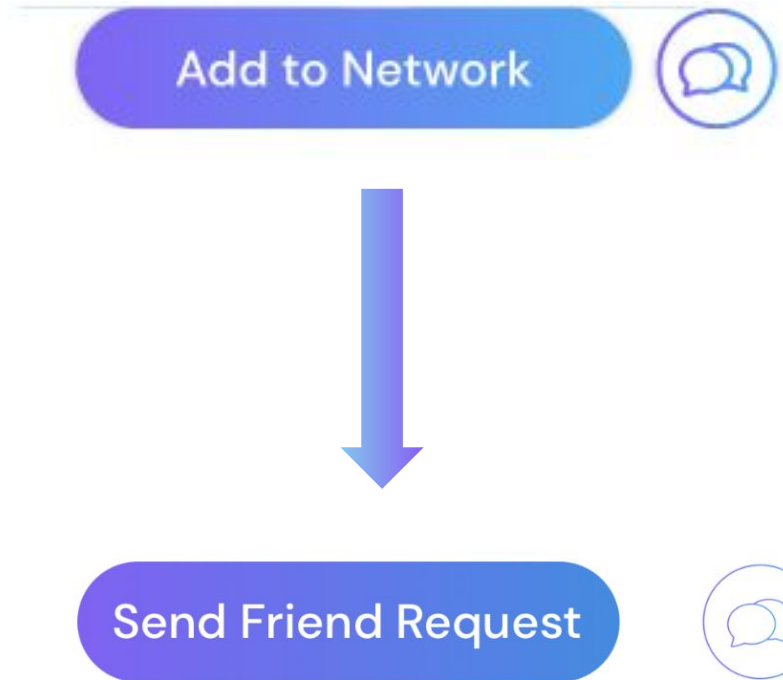
Confusing if this is an action users perform  
before or after meeting in-person




🔧 REVISION 1/9

## Change “Add to Network” to “Send Friend Request”

- Makes the process explicit
- Builds off of user’s **conceptual model** from other social media platforms



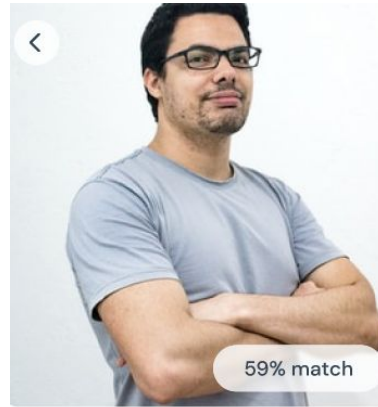
 VIOLATION 1.2 – Severity 4

**No option to specify  
gender in profile (H12)**

🔧 REVISION 2/9

# Add gender pronouns to people's profile bio

- Highlights **inclusivity**
- Ensures all users are **safe and heard**



Griffith, 32 4 mutuals  
0.8 mi away

SIMILAR:

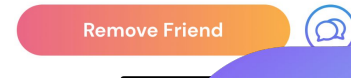
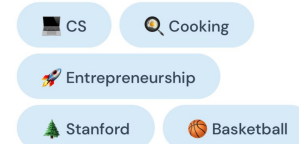


OTHERS:



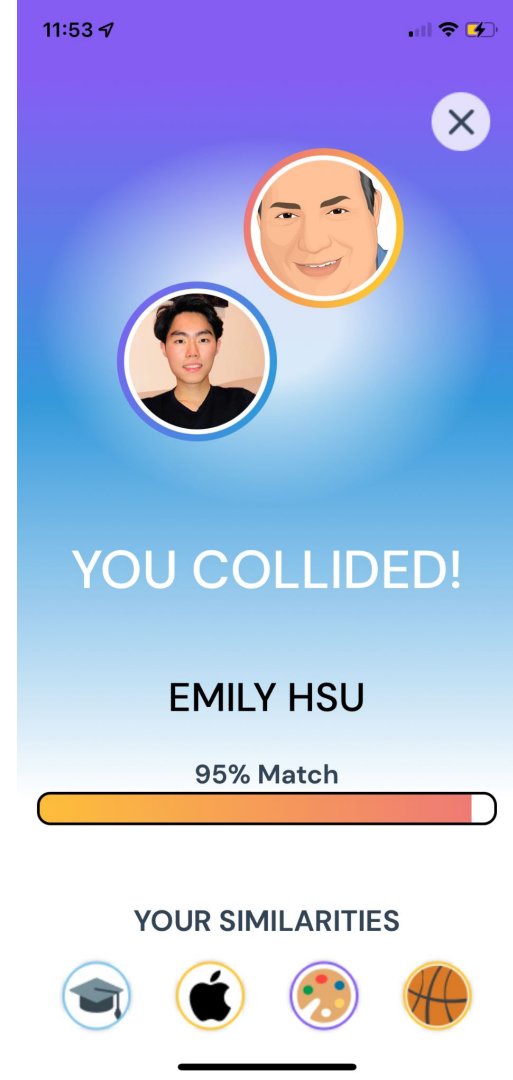
James, 21 4 mutuals  
He/Him


SIMILAR:



# Task 2

Start a conversation with a collision in person



 VIOLATION 2.1 – Severity 3/4

# Privacy and Information Sharing

- Information shared is not specified when entering collision (H3)
- Clarity on Location Sharing (H1)
- Lack of information on Privacy (H10) ← *Unimplemented*

🔧 REVISION 3/9

## Specify in collision notification that they will only view collision

- Alleviate fear of accepting a collision unwantedly



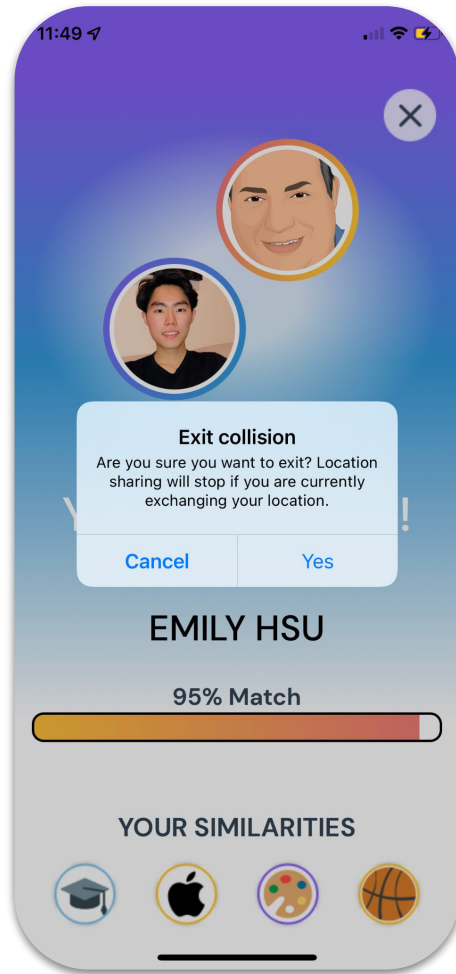
You just collided with  
**Emily Hsu**

[View collision](#)

🔧 REVISION 4/9

## Add modal to clarify location sharing

- When exiting, people will now know that their location will stop sharing

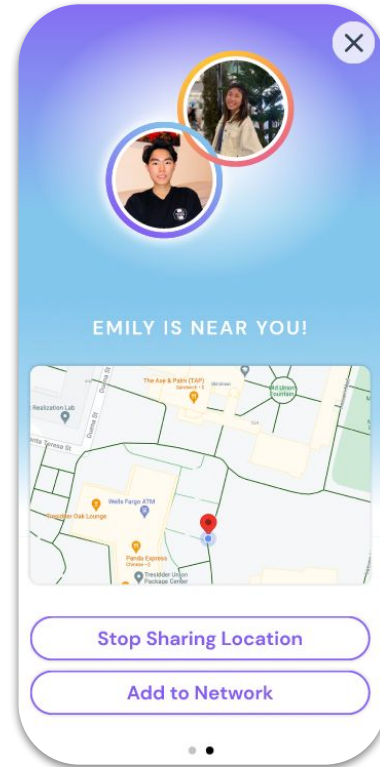




⚠ VIOLATION 2.2 – Severity 3

# Shared Interests Disappear when Location is Exchanged (H6)

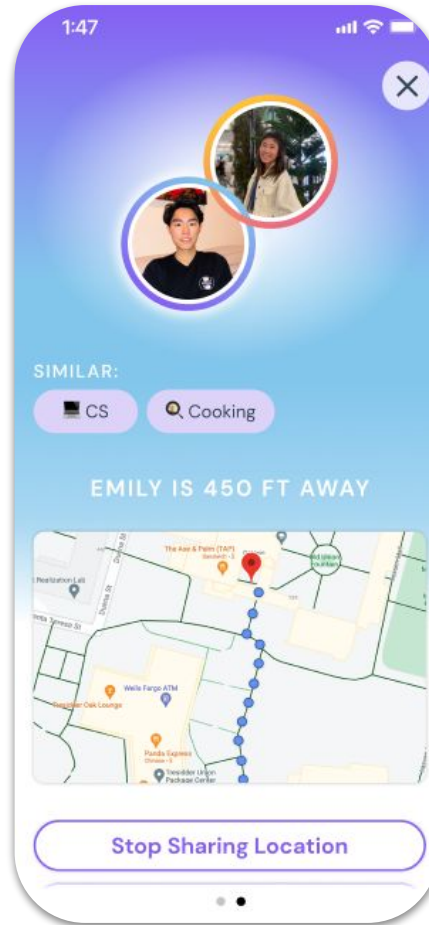
People **forget** what **interests** they had in common with their collision **when they meet in person**



🔧 REVISION 5/9

## Add shared interests to location page

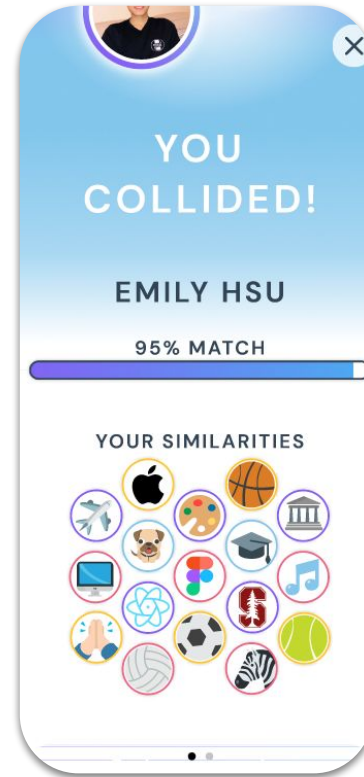
- Makes it easy for users to **recognize** the type of person they are about to talk with



⚠ VIOLATION 2.3 – Severity 4

# Shared Interests are Only Visual (H11)

Doesn't accommodate visually impaired



## YOUR SIMILARITIES



🔧 REVISION 6/9

# Add text to shared similarity icons

- Make it more readable and understandable to a broader audience

## SIMILAR:



CS



Cooking



Entrepreneurship



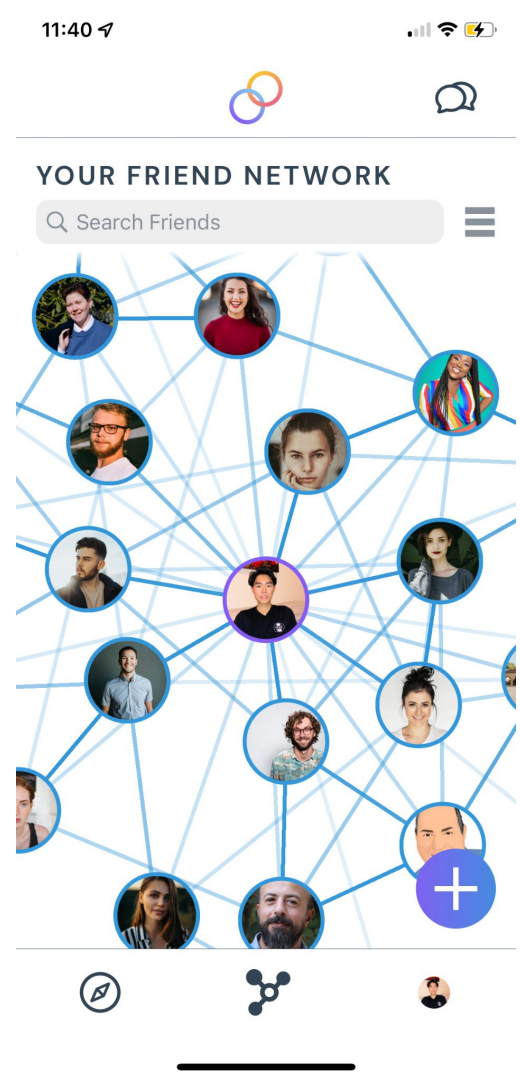
Stanford



Basketball

# Task 3

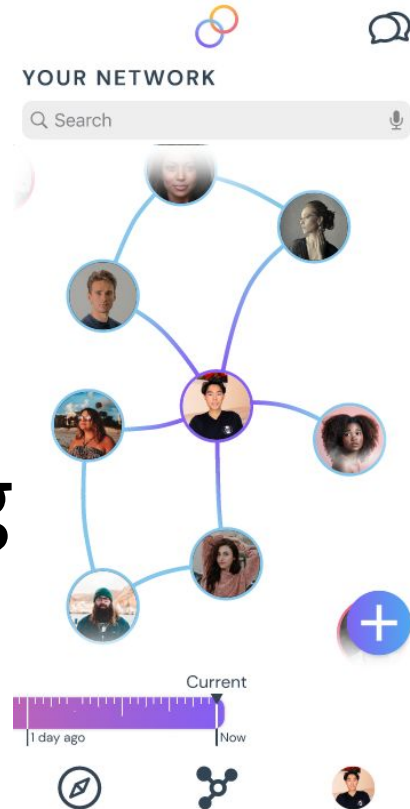
Connect with and reach out to a past friend



⚠ VIOLATION 3.1 – Severity 3

# Network timeline doesn't match real world understanding (H2)

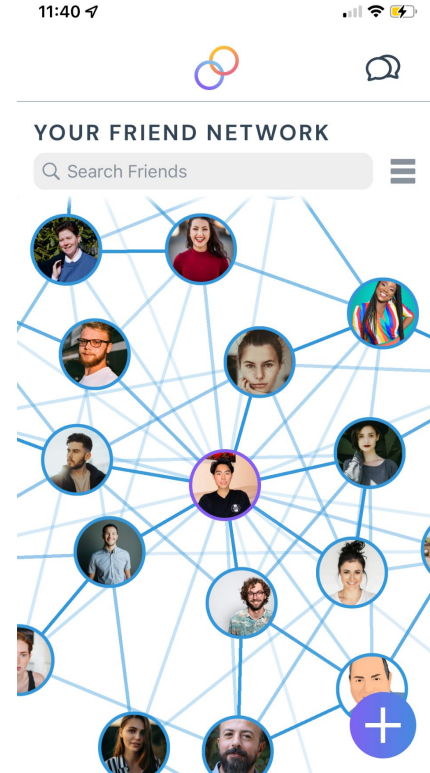
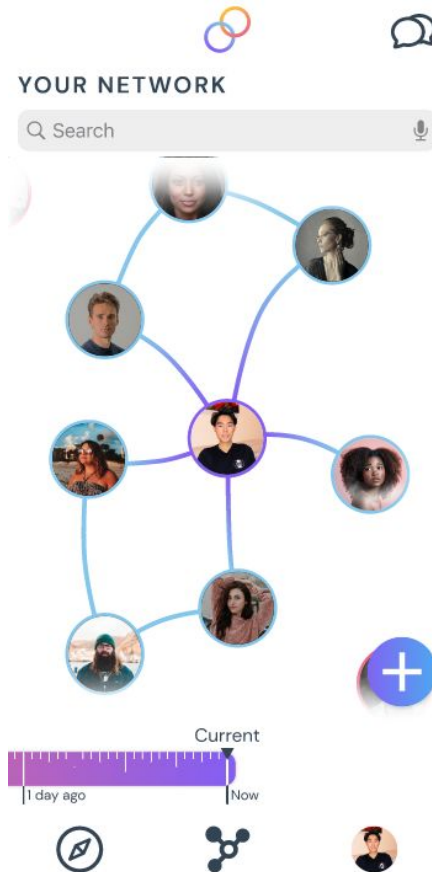
Backward scrolling unclear



🔧 REVISION 7/9

# Remove timeline altogether

- Though it was a cool concept (thanks Christian), we removed it to eliminate potential confusion from the users' end




! VIOLATION 3.2 – Severity 3

# Not enough information to describe another user (H5)

Users were only labeled with their first name

< ADD A FRIEND

Q Search 

SUGGESTIONS



Ekin

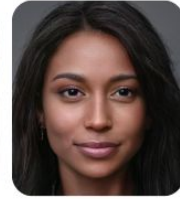


John

RECENT COLLISIONS



Emma



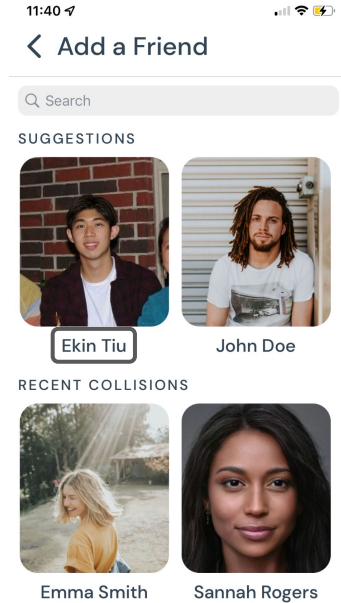
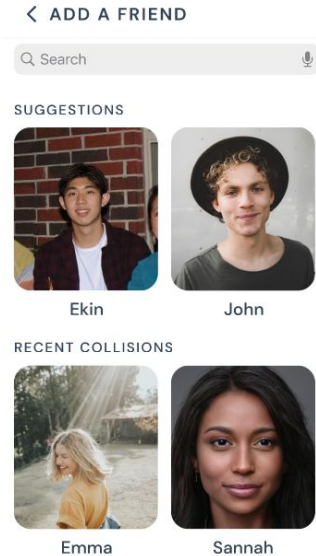
Sannah



🔧 REVISION 8/9

# Add last names to other user's profiles

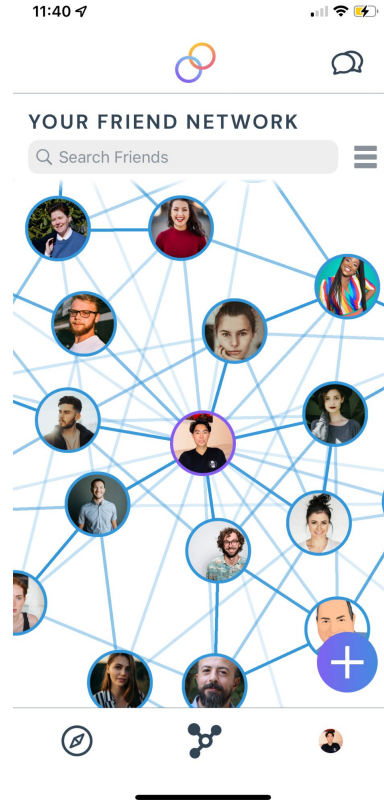
- Helps users differentiate between users to prevent error – i.e. choosing wrong person



VIOLATION 3.3 – Severity 4

# Network Graph is only Visual (H11)

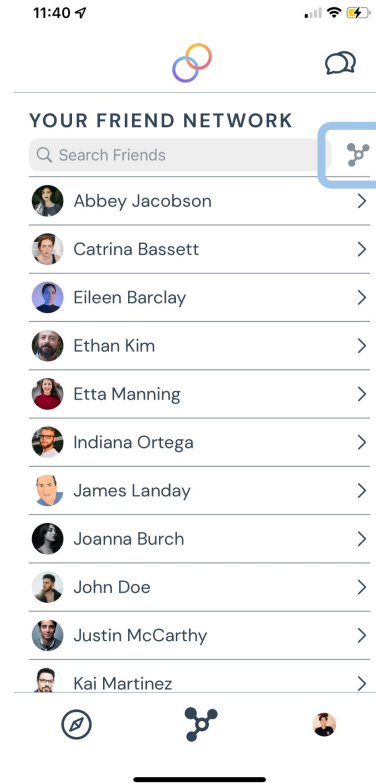
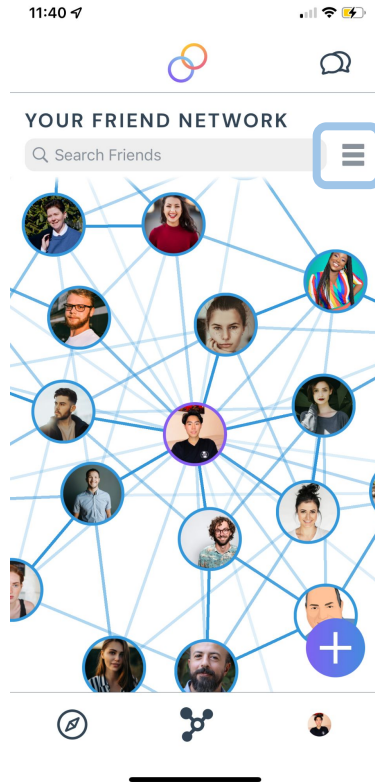
Information is not accessible for **visually impaired users**



🔧 REVISION 9/9

# Add toggle to list view of friend network

- Use toggle button to switch from graph to list interface



# ! Violations Not Addressed

- Violations that were med-fi prototype specific (related to tasks)
  - *I.e. After clicking “Add to Network,” **users receive a popup that says “Task completed!”** However, users may be confused on what a “task” is.*
- Help and information related violations
- Edge cases that the app doesn't allow
  - *I.e. dealing with multiple collisions at a time*

.



1

Heuristic Evaluation

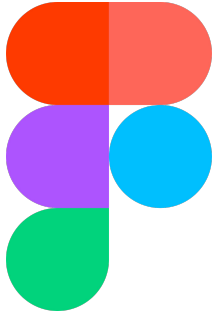
2

Design Revisions

3

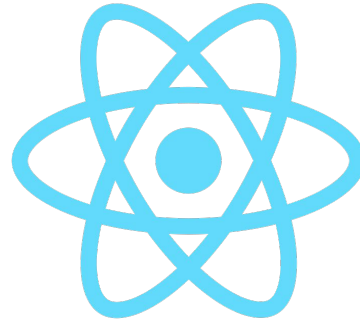
**Prototype Implementation**

# Framework & Tools



Figma

Med-Fi



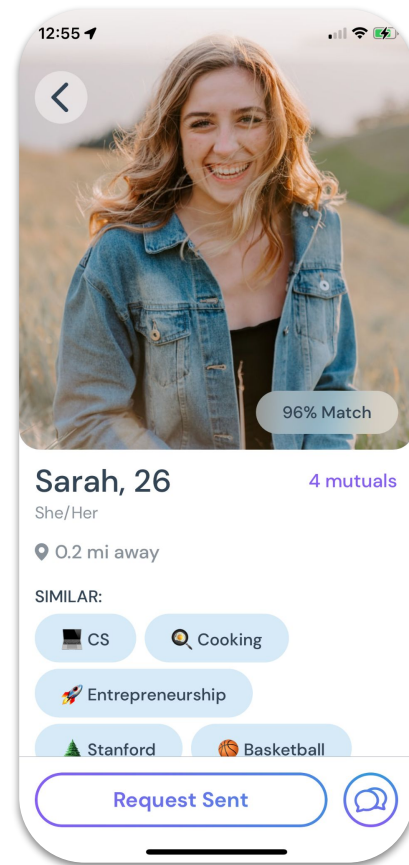
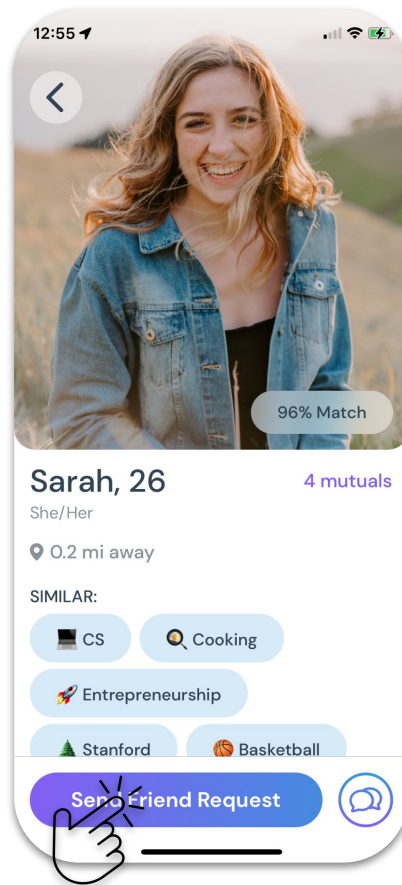
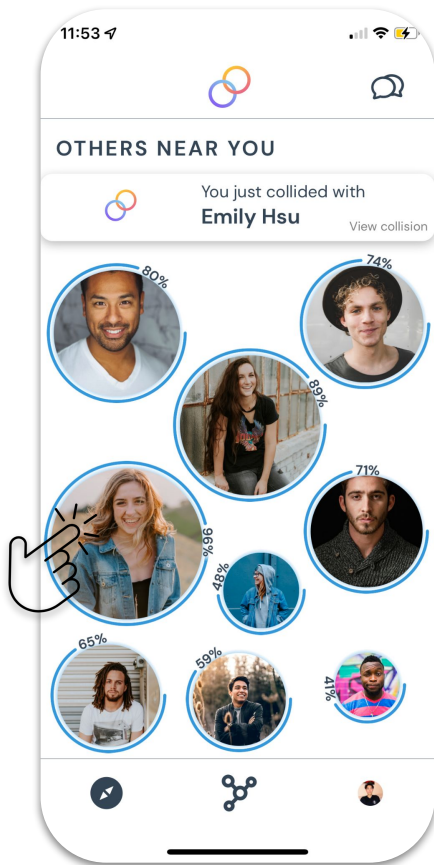
React Native & Expo

Hi-Fi



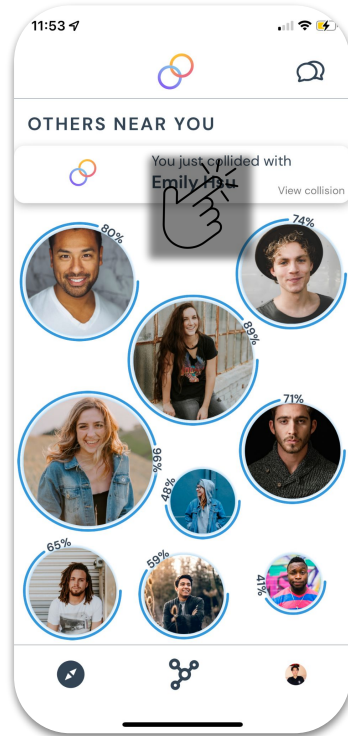
# ✓ Simple Task 1 is Finished

*Befriend someone near you with similar interests*

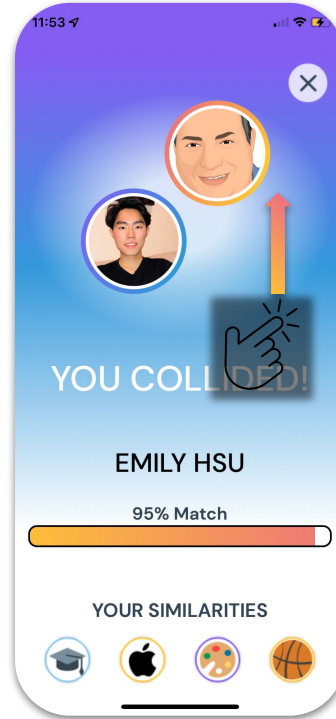


# 🚧 Moderate Task 2 is a Work in Progress

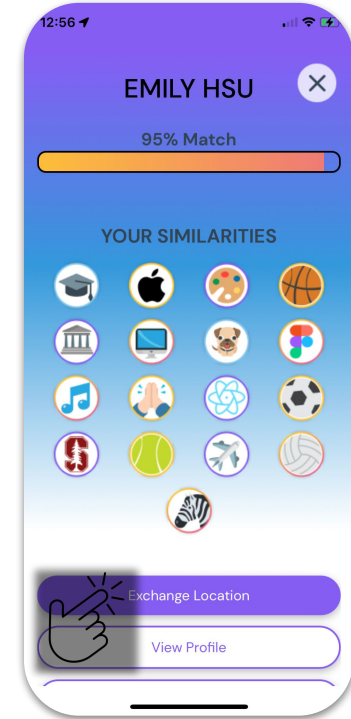
*Start a conversation with a collision in person*



**Tap Notification**



**View Collision**



**See Similarities**

*Next up...*

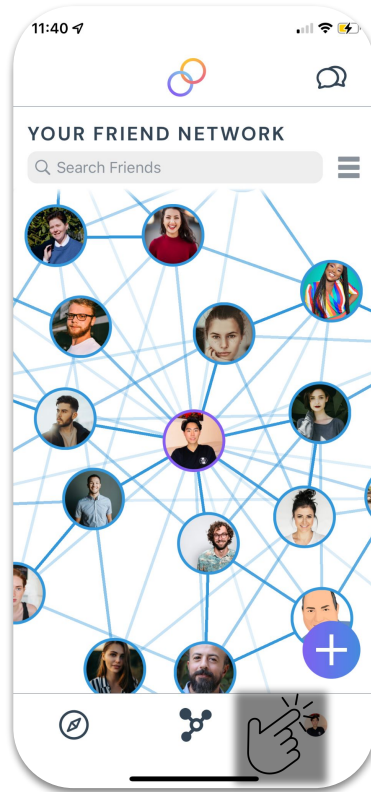


**Exchange Location**

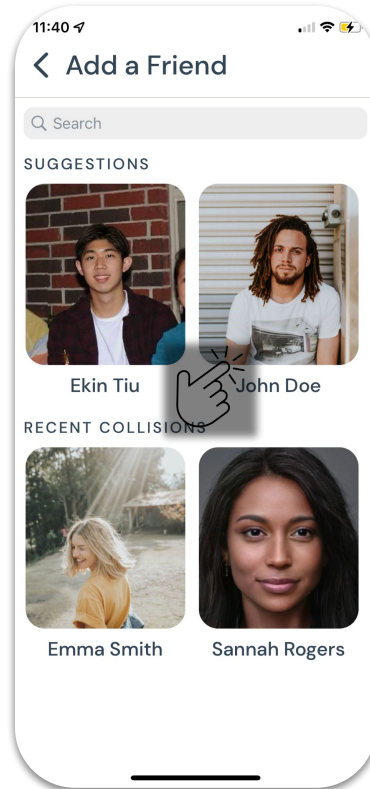


# 🚧 Complex Task 3 is a Work in Progress

Intro > HE > Revisions > **Prototype** > Demo

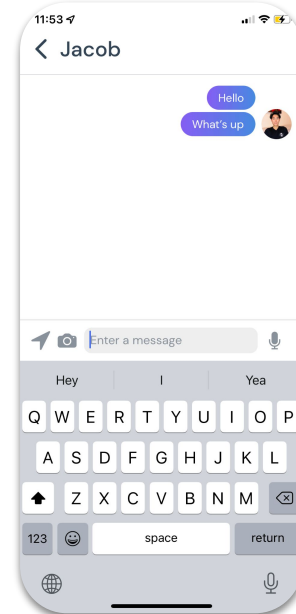
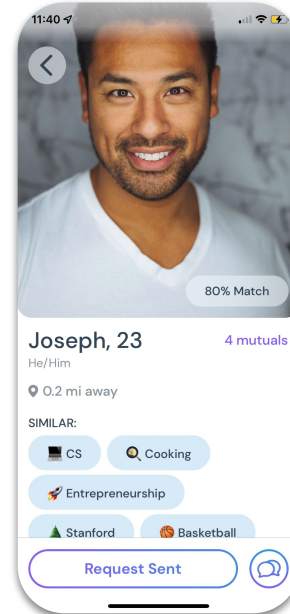


*View friend network*



*Friend suggestions*

*PREVIEW*



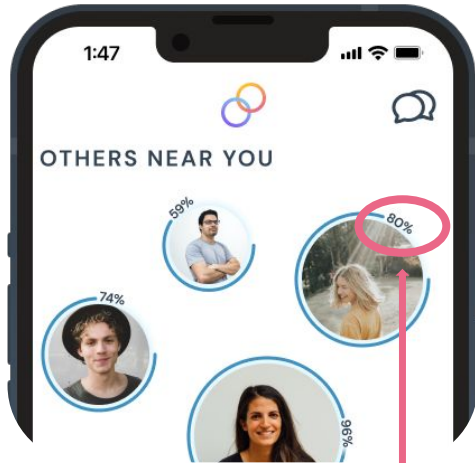
*Click on other person's profile and message*

Connect with and reach out to a past friend



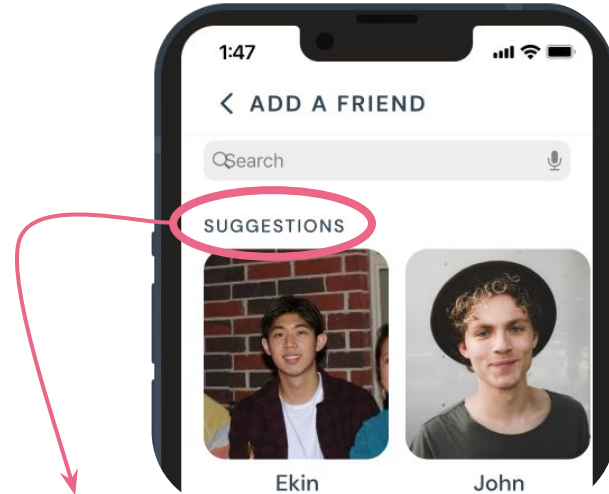
# Wizard of Oz Techniques

## Matching Algorithm



No matching algorithms, so **we act as the matching algorithm** by hard coding fake match scores.

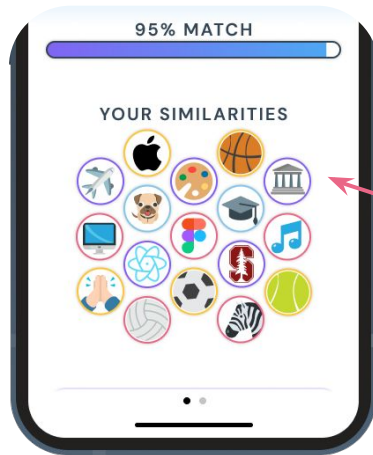
## Suggestions to Add to Network



A suggestions algorithm would be impractical without having existing users, so **we make fake suggestions for past friends** to add on the platform.

# Hard Coded Features

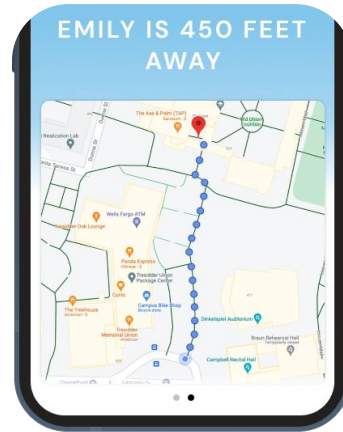
## Profile Information



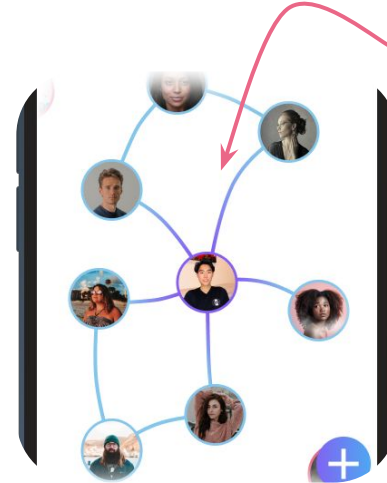
*All profiles, shared interests, and match scores are hard-coded elements in all screens.*

## Map to Find Match

*We use a screenshot from Google Maps, and do not use any real location information.*



## Network



*All connections to other users on the platform at each time stamp are manually created.*

## WHY Hard Coded?

- No users on the platform,
- No way to extract this information (profiles and location)
- not necessary to test user experience and task flows.



# Roadmap

Task 1



 Share Location...

Task 2

Task 2



Past Friend Profile...



Messaging

Task 3

Task 3



 Complete

 Todo



# Unimplemented Features

- Messaging System
- Exchange Location
- Self-Profile Screen\*
- Addressing Additional Violations in App
  - Privacy concerns through **help screen**

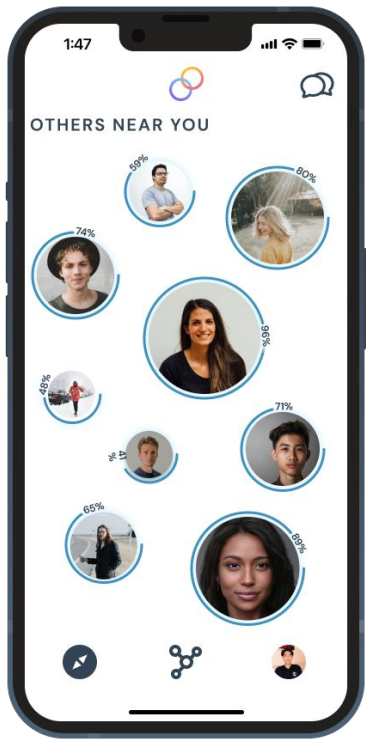
# Prototype Implementation

Issues / questions

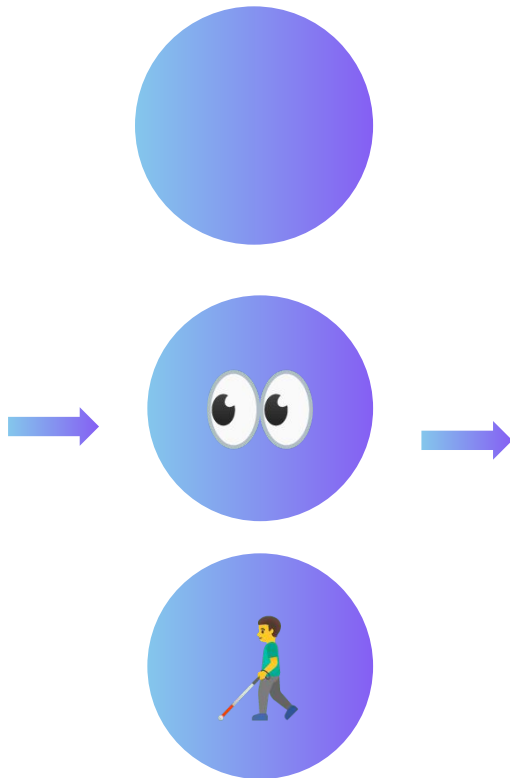
# Demo of Prototype



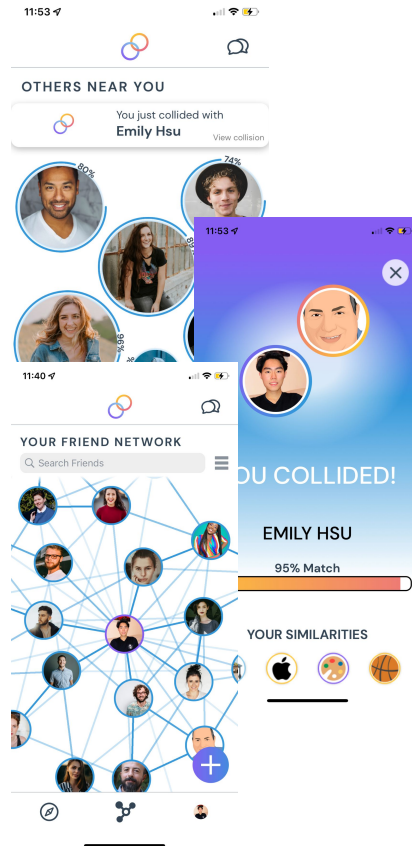
# Summary



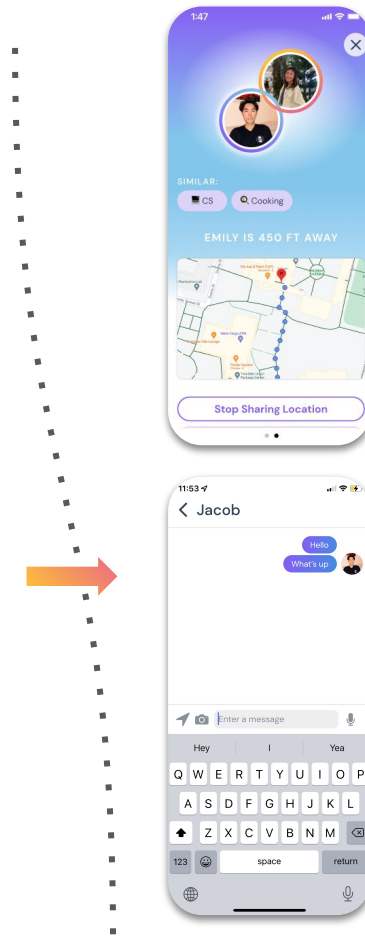
Med-Fi Prototype



Heuristic Evaluation



Hi-Fi Prototype



Next Up!