

Lifeline: A Campus Safety App

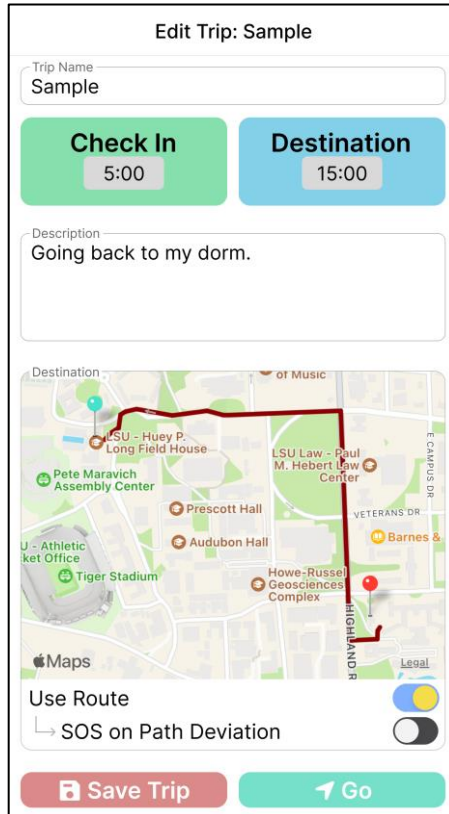
Muhammed Habibovic

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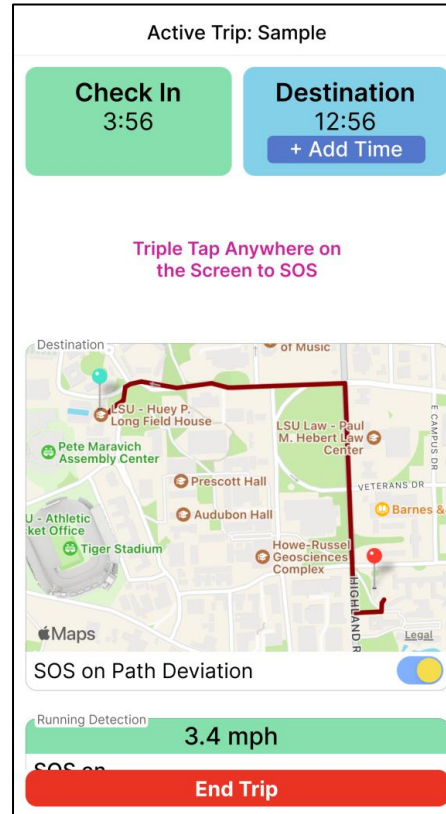
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An online version of this presentation is available at mhabibovic.com/lifeline.pdf

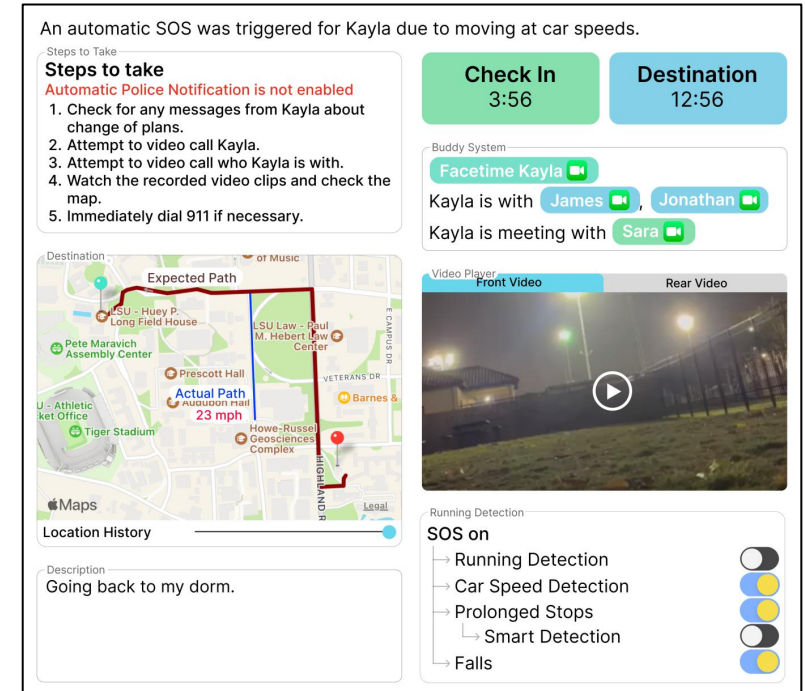
Overview



Trip is
Started



Incident is
Detected



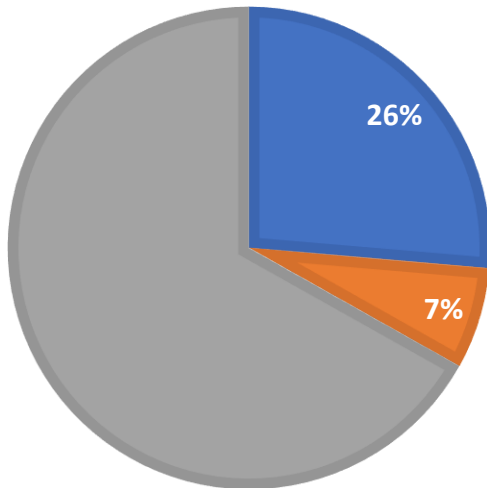
Possible Incident: notification to emergency contacts and/or LSU PD with comprehensive data for rapid response.

- Lifeline is a modern, free, and easy to use app with advanced features intended to make travel on campus safer.

Motivation

26% OF COLLEGE WOMEN
WILL BE SEXUALLY ASSAULTED
BEFORE GRADUATION

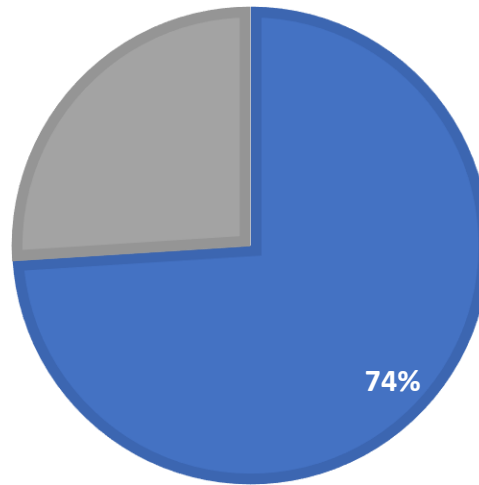
■ Women Assaulted ■ Men Assaulted ■



<https://www.rainn.org/statistics/campus-sexual-violence>

74% OF COLLEGE STUDENTS
REPORT FEELING UNSAFE
WALKING IN THE DARK

■ Unsafe at Night ■



<https://newsroom.adt.com/safe-stories/research-finds-82-percent-american-college-students-are>

- Despite modern technology like cameras and advanced forensics, many offenders go **unpunished**
- Many crimes could be **prevented** and victimization spared if immediately detected
- Inspired by my personal experience with violent crime, I aim for Lifeline to be a trusted tool to ensure student safety

Lifeline App

Greatly Improved
Advanced Incident
Detection

**Check in Intervals &
Easy SOS while Fleeing**

Movement Awareness
for Abduction
Detection

Decoy Passcode in
Case of Coercion by
Assailants

Buddy System
Monitors for
Unexpected Separation

Easy Response to
Incidents

360 Video/Audio to
Ensure Capture of
Assailants and Events

Location History to See
What Went Wrong &
When

Easy Dashboard for
Emergency Contact
Incident Management

Easy Integration With
LSU PD For Rapid
Response

Use Encouragement

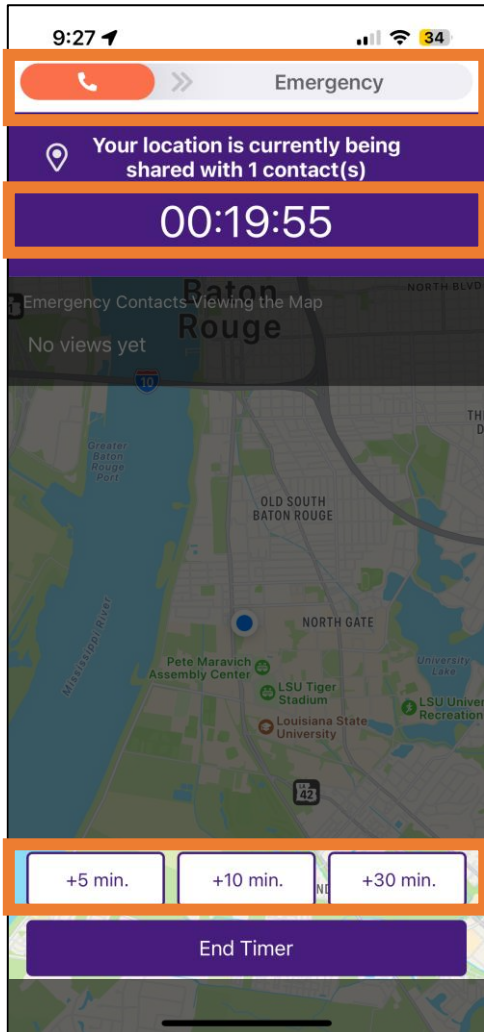
Modern & User-
Friendly Interface

Ability to Only Notify
Contacts During
Incidents, Encouraging
Use With Parents &
Friends

FriendSystem Ensures
Safety at Outings

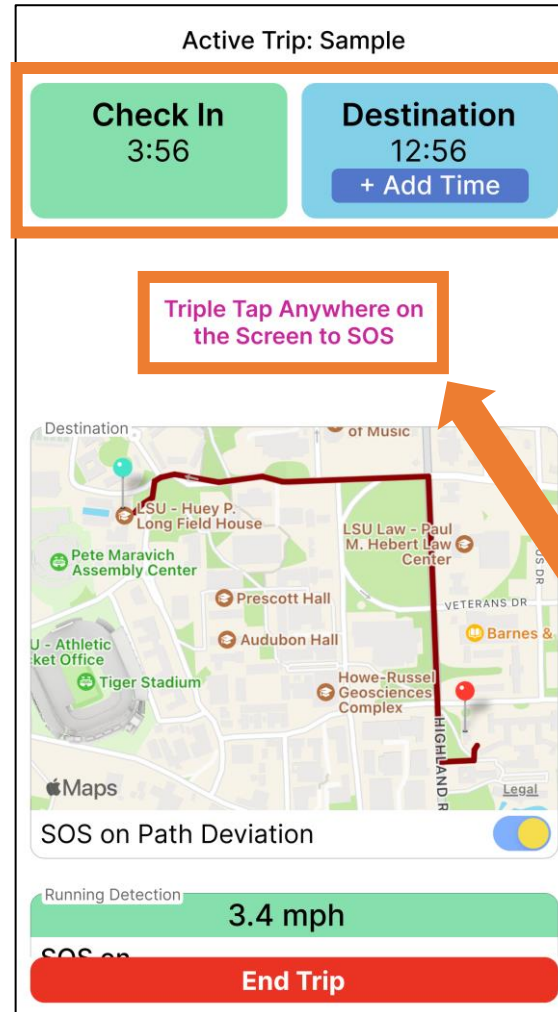
Lifeline App Provides Check in Intervals Rather than Check in Just at End & Easy SOS Triggering While Fleeing

LSU Shield App



- Difficult to use SOS slider while **fleeing from assailants**
- Must unlock phone, even more difficult
- **Only Indication** that something has gone wrong with LSU Shield is when timer expires
- No check in intervals
- Time can be added **without passcode**, neutralizing the only method of detection if phone is taken

Lifeline App



- Time to destination is tracked
- Check in **with passcode** required at pre-set intervals
- Myriad of other incident detection techniques
- **Easy Triple Tap Anywhere on Screen** to trigger SOS
- Easily done while running
- **No need** to unlock phone

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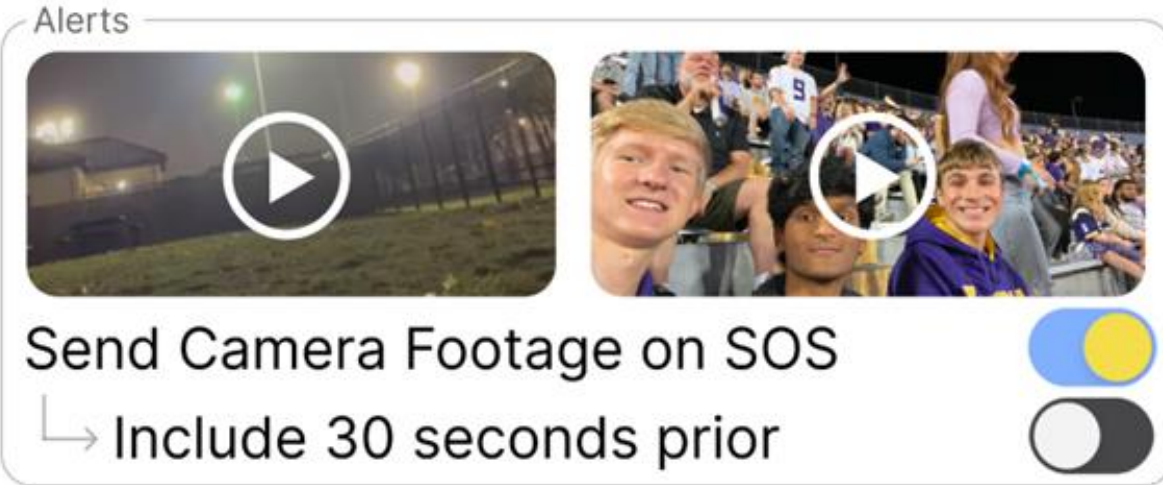
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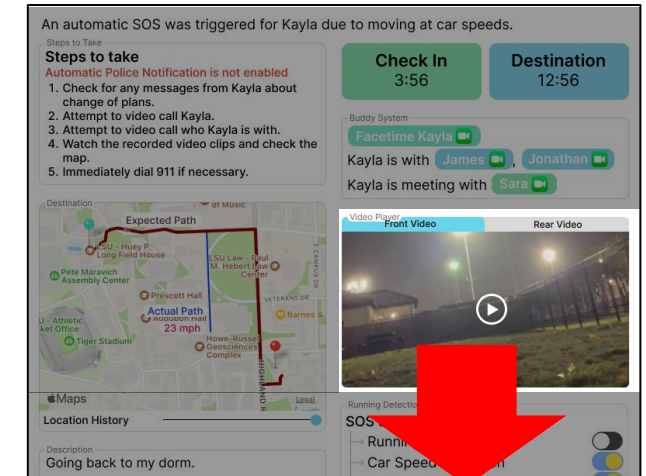
Lifeline App Transmits Video & Audio From Incident for Identification of Abductors Resulting in Victim Recovery & Conviction

Lifeline App Trip Settings



- Up to 30 seconds of video & audio **with 360 view** is transmitted upon incident detection.

Info Screen For Emergency Contacts



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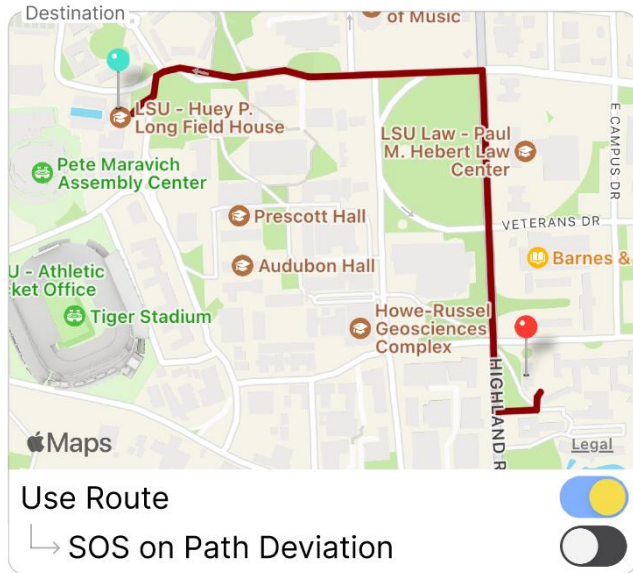
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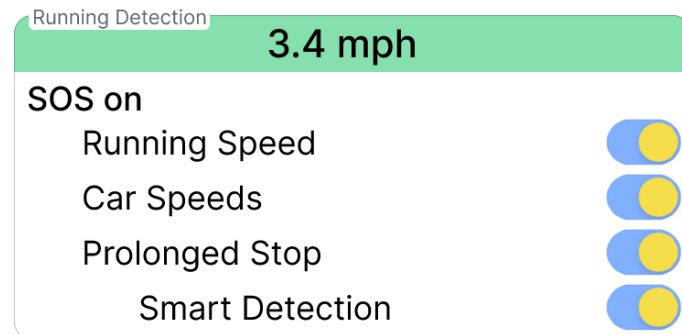
FriendSystem Ensures
Safety at Outings

Lifeline App Provides Destination & Area Selection With Alerts for Deviation to Detect Abductions

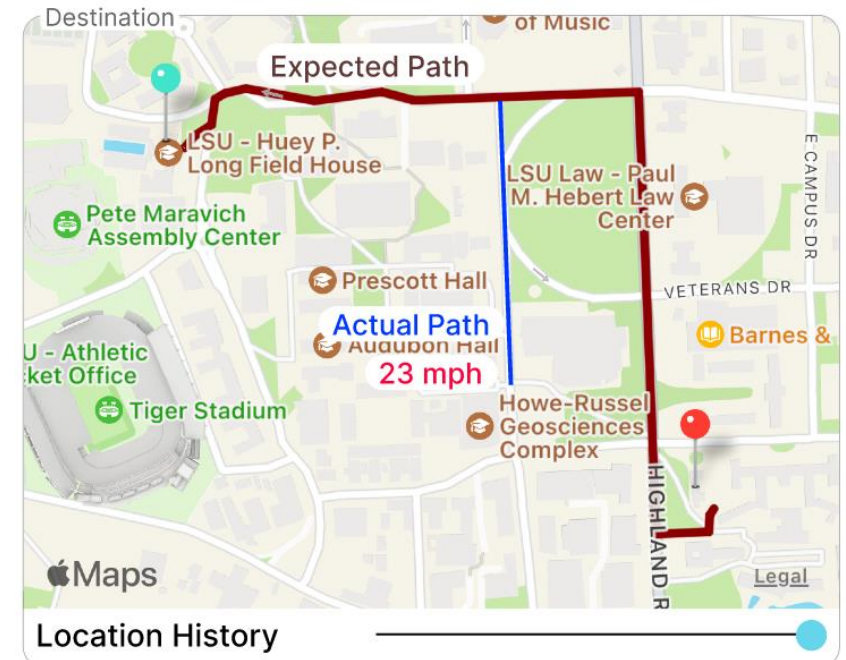
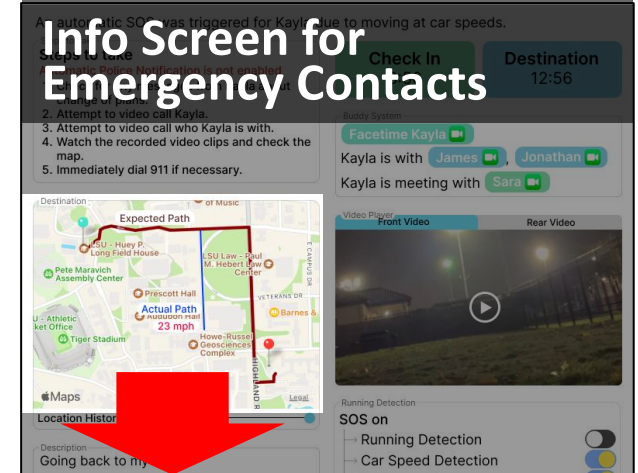
Lifeline App Trip Settings



- **AI analyzes route** to determine if it is a reasonable path
- If path is deviated from, contacts will receive emergency alerts with **live location & history**



- Advanced triggers for:
 - Running detection
 - **Help is needed**
 - Car speed detection
 - **Possible abduction**
 - Prolonged stop
 - **Possible assault**



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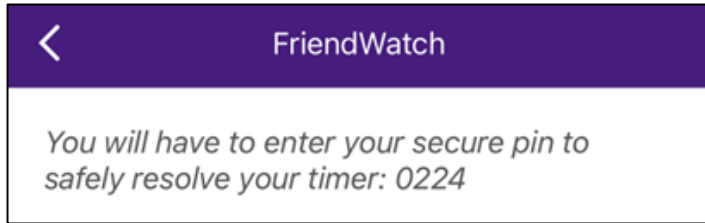
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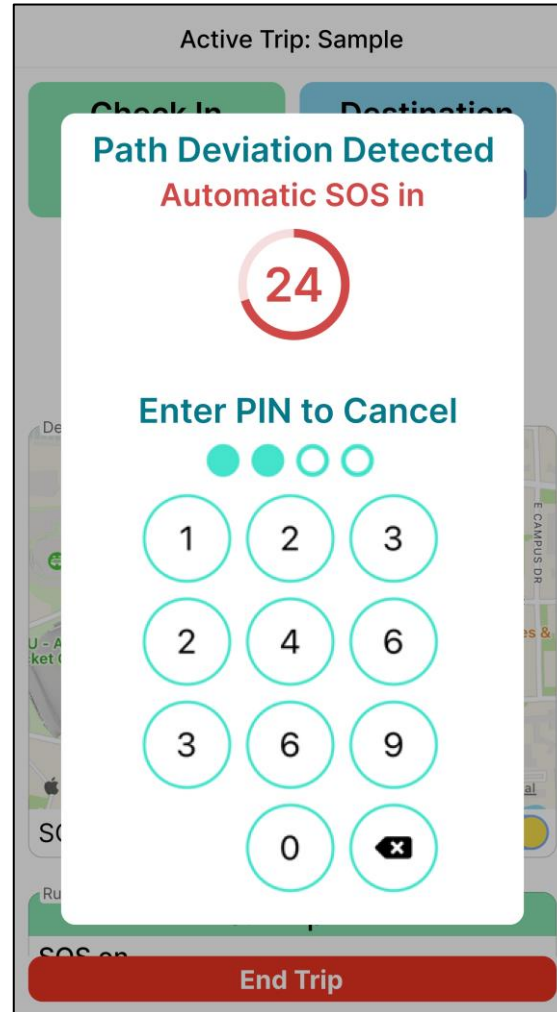
Lifeline App Allows for User to Create a Decoy Passcode in Case of Coercion by Assailants

LSU Shield App



- LSU Shield App provides a passcode to user, **no ability to set custom or decoy**

Lifeline App



- Lifeline app allows for custom passcode & **decoy passcode**
- If decoy passcode is used, app will act as if correct one was used
 - Once set, **no way** to tell if passcode is decoy
 - Decoy Passcode** immediately triggers incident & notifies emergency contacts with video, audio, & live location & history with **no indication to assailant**

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Lifeline App Includes Buddy System With SOS Alert if Unexpectedly Separated

Lifeline App Trip Settings

Buddy System

Kayla

Jonathan

+ Add Buddy

Meeting With Sara

SOS on Separation

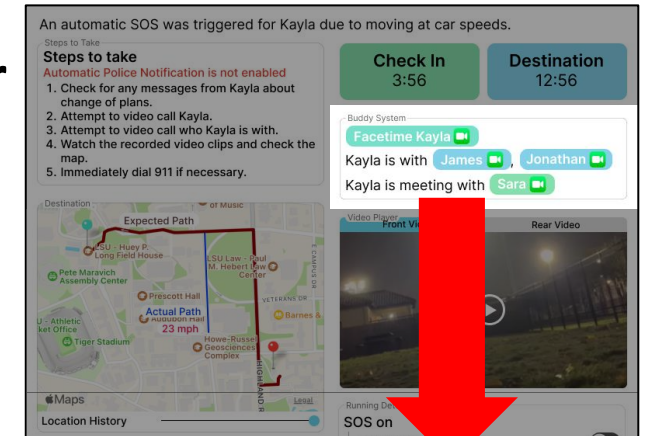


Require Sara to confirm arrival



- User can add who they are going with
- If others have app, SOS alert will **trigger on separation**
- Can add who is at destination & **require confirmation of arrival** from that person

Info Screen For Emergency Contacts



Buddy System

Facetime Kayla

Kayla is with James, Jonathan

Kayla is meeting with Sara

- Emergency Contacts will have contact information for everyone user is travelling with & meeting

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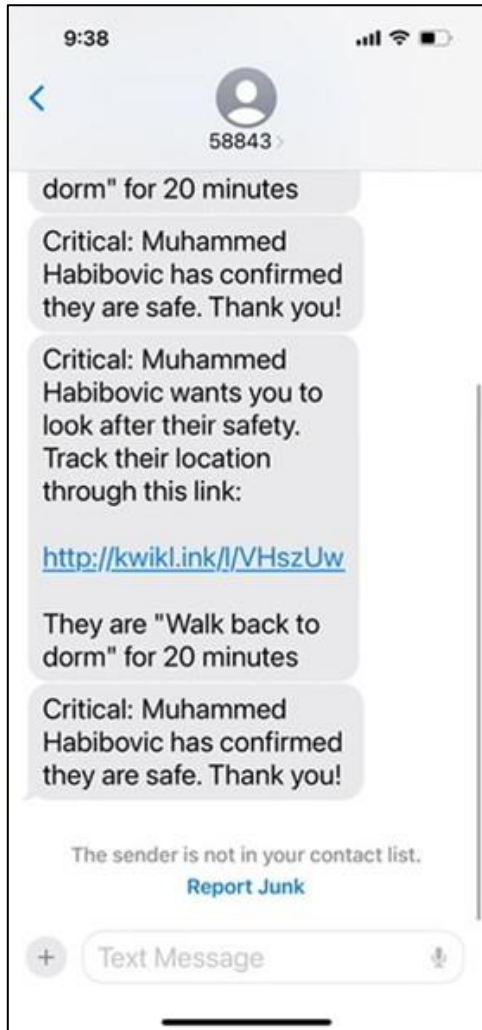
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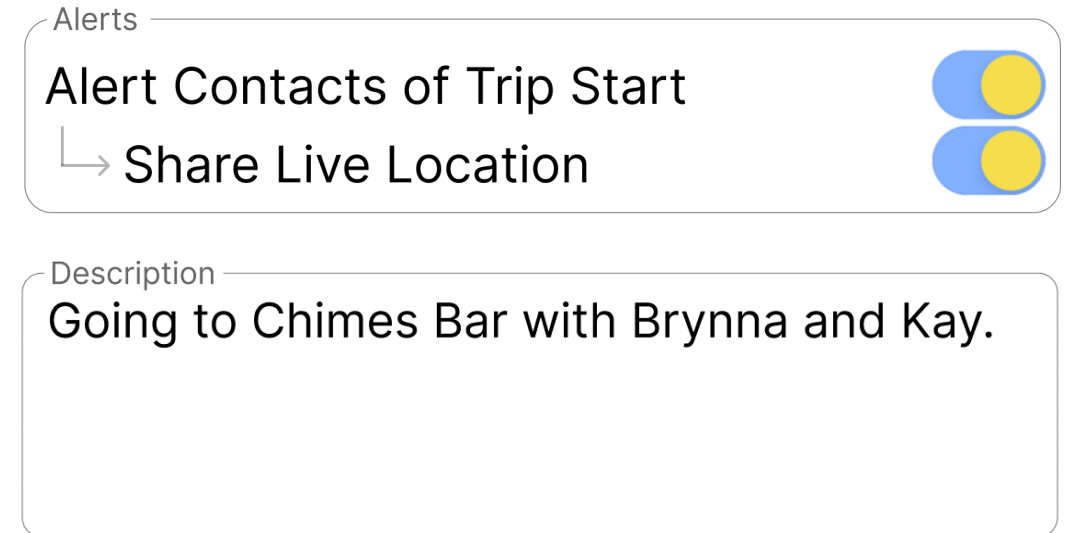
Lifeline App Allows for Emergency Contacts to Only be Notified During Incidents, Encouraging Use with Parents & Friends

LSU Shield App



- Emergency contact receives text at **start of trip with details**
- Discourages use with parents as most college students **don't want parents to know everything**
- Students may feel they are being "annoying" by constantly sending alerts to friends

Lifeline App



- Contacts can be notified **only in case of incident**
- Students **much more likely** to use with parents and **enter accurate trip data** for emergencies

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Lifeline App Includes an Easy Dashboard for Incident Management by Emergency Contacts

An automatic SOS was triggered for Kayla due to moving at car speeds.

Steps to Take

Steps to take

Automatic Police Notification is not enabled

1. Check for any messages from Kayla about change of plans.
2. Attempt to video call Kayla.
3. Attempt to video call who Kayla is with.
4. Watch the recorded video clips and check the map.
5. Immediately dial 911 if necessary.

Check In
3:56

Destination
12:56

Buddy System

Facetime Kayla

Kayla is with James, Jonathan

Kayla is meeting with Sara

Video Player

Front Video

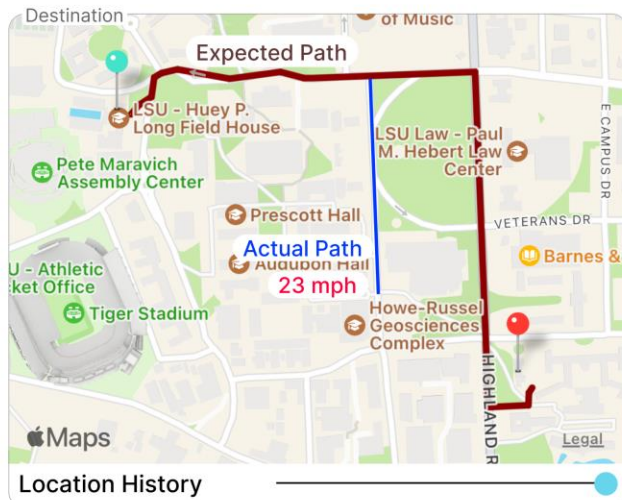
Rear Video



Running Detection

SOS on

- Running Detection
- Car Speed Detection
- Prolonged Stops
 - Smart Detection
- Falls



Description

Going back to my dorm.

Lifeline Trip Info Screen

- **Key details** regarding trip
 - **Reason for incident report**
 - Map with **live location & history**
 - Trip Description
 - Time left
 - Travel buddies **with contact information** to ensure safety
 - **Video & Audio** of Incident
 - Trip Settings
- Steps to take are listed to **ensure rational thinking & beneficial actions** are taken in dire times

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Lifeline App Will Allow for Trivial LSU PD Integration


Lifeline App Trip Settings

Lifeline Incident Portal

Access Code

LSU

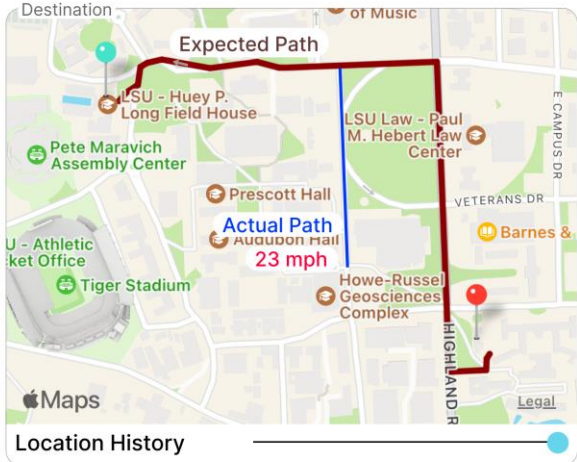
SL42



- Integration is trivial: LSU PD Dispatch receives an automated call with a code, enters it into secure website, views information
- No new software** is needed for LSU PD



An automatic SOS was triggered for Kayla due to moving at car speeds.



Check In 3:56

Destination 12:56

Buddy System

Call Kayla

Kayla is with James, Jonathan

Kayla is meeting with Sara

Video Player


Front Video

Rear Video

Location History

Description

Going back to my dorm.



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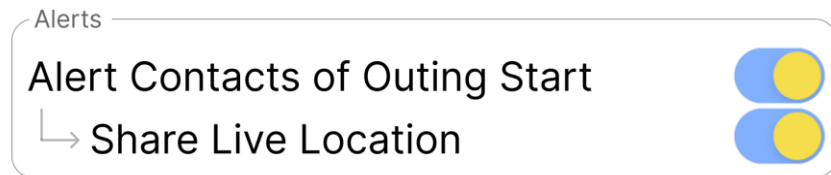
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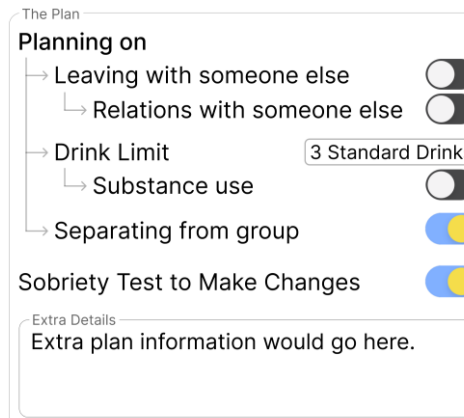
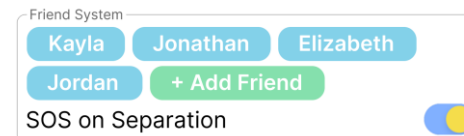
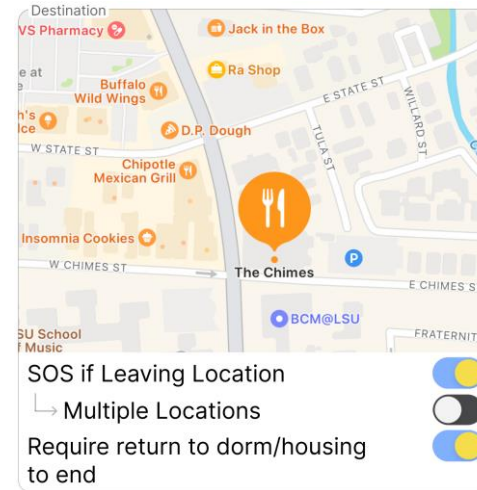
**FriendSystem Ensures
Safety at Outings**

FriendSystem Ensures Safety at Outings Such as Bars & Frat Parties

- Often at Bars or Frat Parties, a student in a friend group is **left behind** for a multitude of reasons.
- Unscrupulous persons may try to **take advantage** of the situation
- FriendSystem helps to **ensure safety**



- Parents do not have to be alerted of the start of the outing, which **encourages students** who know they can trust their parents but **don't want them knowing** about their activities to use the app as a backup



- Geofencing ensures users remain in **safe areas**
- Listing the friend group ensures **no one is left behind** & emergency contacts can intervene if so
- A plan can be defined so friends **know when to take concern** with another friend's actions

Conclusion

- One of my principle passions is helping others. I want to ensure that no one else is a victim of violent crime, and if they are, that the tools exist to hold perpetrators responsible and provide victims with justice.
- Lifeline will likely complete development in about a month and will be free to use.
- I will try to spread it myself, but my influence is limited. The impact of Lifeline could be much greater with promotion and awareness campaigns focusing on the rich features and ease of use.
- Integration with LSU PD will allow for a much greater impact.
- Any feedback or suggestions for improvement are greatly appreciated.
- A small monetary grant would allow for much easier scaling.