

NiteLite



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4 in 10

Americans Fear Walking Alone at Night

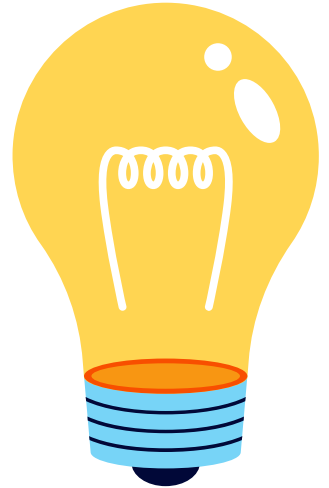
Source: <https://news.gallup.com/poll/144272/nearly-americans-fear-walking-alone-night.aspx>

The Idea

NiteLite is a mobile app designed to help users feel safe by providing them with the safest walking route to their destination.

Takes into account:

- Lighting on path
- Busy areas
- Open businesses nearby





Vision

Create a safe experience for anyone travelling via foot by providing perfect knowledge of their surroundings.

App Goal

Allow users of NiteLite to get from Point A to Point B with knowledge on what routes are the safest.

Target User Groups

People walking around at night, women, children, elderly; those who may not be able to protect themselves during an attack.

The Stats

50% of women say they always or often feel **unsafe** walking alone at night.

65% of women across the globe have experienced **street harassment**.

Parents decision to let their kids walk is primarily based on three factors:

- (1) The **Built Environment** (footpaths, traffic lights, road crossings)
- (2) The **Regulatory Environment** (road rules)
- (3) The **Cultural Environment** (crime rates, community expectations)



User Personas

Angela

Age: 26

Work: Financial Advisor in DTLA

Family: single, lives alone

Location: Los Angeles, CA



Bio: Angela often has to find street parking for her job; her car can be up a half mile away from the her office. She often works late at Morgan Stanley, and is worried about walking to her car in DTLA alone at night after work.

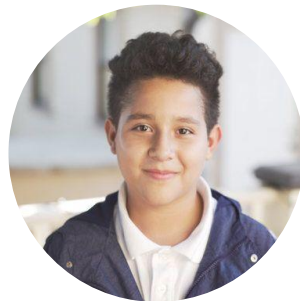
Damien

Age: 13

Work: Student

Family: only child, mom, and dad

Location: Los Angeles, CA



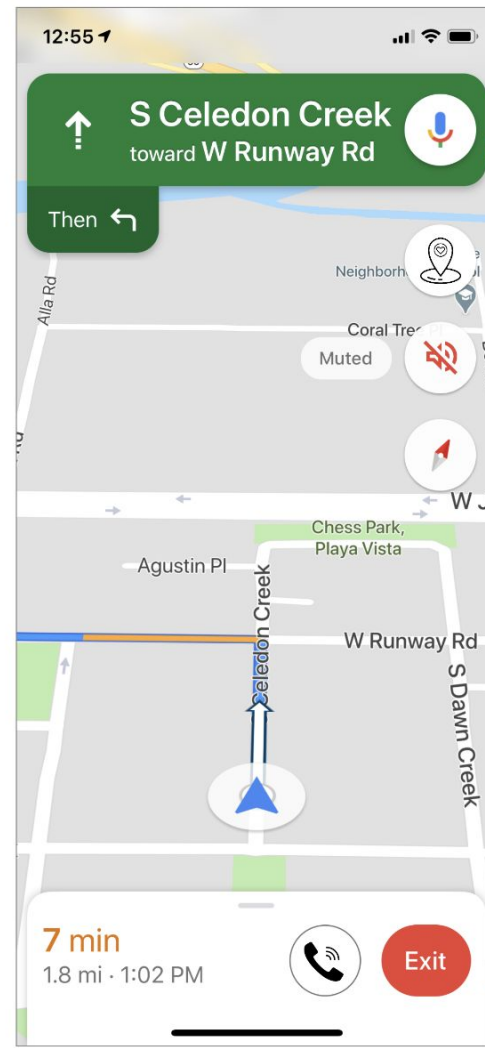
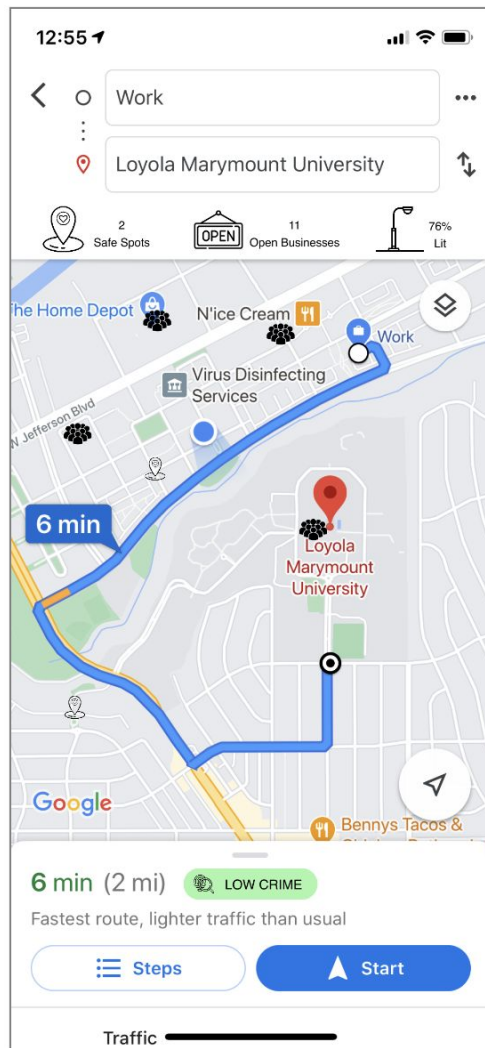
Bio: Damien plays on the soccer team at his middle school. After practice, he walks home by himself since both of his parents work late. His parents are concerned because he has to walk home alone for 2 miles, and sometimes it is already getting dark after he finishes soccer practice.

Key Features

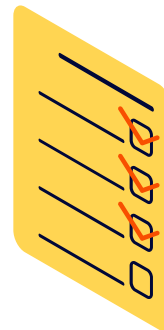
- Track user's current location
- Find a route to their destination that is safe
- Provide users information on the streets they may be travelling on
 - Lighting
 - Open establishments
 - Road Closures
 - Business
 - Crime
- Safe places to stop along the route



Mocks



Potential Add-On Features



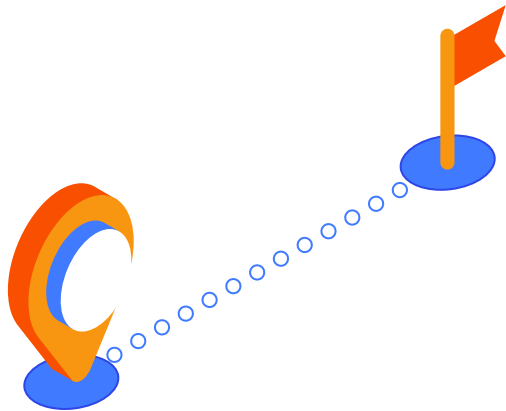
- **Community Feature**
 - Community contributions like Waze
 - High traffic
 - Well-lit streets
 - Open establishments
- **Share Route**
 - Share with certain contact
- **Emergency Contact**
 - Either 911, other public safety phone number, or a trusted friend or family member
- **Safety Button**
 - Press the button if you are feeling unsafe, if you are idle it will call an emergency number
- **Audio Files to play when a user is feeling unsafe**

How are we going to do this?



How we are going to build it?

- React Native
 - support on iOS and Android phones
- Use of Google Maps API for map and route
- Enable location sharing on the client side
- Find information on crime rates on particular streets
- Research into route-generating algorithms



APIs



Google Map API



- Google's Cloud-based Map Styling
- Waypoints
 - Route Modification to Provide Safety
 - Check-ins for Users along route
- Endpoints
 - DirectionsRequest
- Distance Matrix API
 - takes in Point A and Point B, returns multiple routes to get there
- Places API
 - return list of places along users route
- Streetview
 - Panorama
 - POV
 - Tiles
- Markers
 - Icons
 - Labels

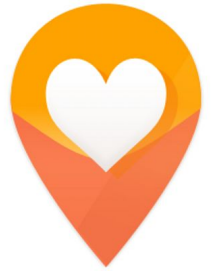
Crime-o-meter API



- Endpoint: /stats
 - **total_incidents**: Total number of incidents
 - **type**: Incident offense description
 - **count**: Total number of incident by offense description
- Endpoint: /rawdata
 - **city_key**: City code in UN/LOCODE standard
 - **incident_date**: Incident occurred date
 - **incident_offense**: Incident offense type using FBI-NIBRS standard
 - **incident_offense_crime_against**: Incident against Person/Property/Society/Not a Crime
 - **incident_offense_action**: Incident action status (Committed/Attempted)
 - **incident_source_name**: Incident source name
 - **incident_address**: Incident address (approximate in some cases)
 - **incident_longitude**: Incident longitude
 - **incident_latitude**: Incident latitude

Walk Score API

- Score Endpoint
 - Input:
 - Address
 - Latitude
 - Longitude
 - Output
 - Walk Score
 - Description



Other Technologies

- User Database for Emergency Contacts
 - Firebase
- Front End Design
 - Figma
 - AdobeXD
- Source Control
 - Github
- Front End Implementation
 - JavaScript
 - React Native
 - Redux
- Testing: Integration and Unit
 - Jest or Mocha

Thanks for listening!
Questions?

