Bikers need a way to forecast route conditions because unexpected conditions can lead to a stressful and delayed ride.

We believe that by providing a simple pre-ride forecast for commuters, we will achieve greater route efficiency, skimming minutes off planning and ride time.
USER RESEARCH
TARGET AUDIENCE

Urban commuter cyclists + bike enthusiasts
[4] interviews were conducted with individuals who bike frequently for commuting, exercise, and fun. Each person approaches biking uniquely but similarities can be drawn between them to discern primary motivations and pain points.
KEY GOALS + TAKEAWAYS

USER GOALS

- Find efficient routes for commuting with minimal effort
- Bike as means for quick transport to multiple destinations
- Ride for leisure and discovery of new places

TAKEAWAYS

- [pain point] Users have limited trust in bike infrastructure
- [pain point] It’s difficult to plan social activities around bikeability because of safety concerns
- [pain point] Concerns: theft, popped tires, drivers
- Despite pain points, bikers are going to bike because it’s efficient, economical, and enjoyable
"I just didn’t have time to think about traffic this morning... I was already late to my first meeting and the closed road made me even later” [with frustration]

GOALS + NEEDS
- Commute efficiency
- Rides to multiple destinations
- Needs to keep bike and all of its parts

PAIN POINTS
- Unpredictable infrastructure
- Stress in biking vs no biking
- Safety concerns

Age: 32
Occupation: Industrial Designer
Income: $80k
Residence: San Francisco
Education: College Grad
Other Info: Works hard, plays hard, bikes hard
"My co-worker told me I can take my bike on the train and bike to school from there. Sweet!"

**GOALS + NEEDS**

- Bike as alternate/addition to transit commute
- Rides socially
- Rides for enjoyment

**PAIN POINTS**

- Weather
- New route = more planning
- Different route = unfamiliar territory

Age: 27
Occupation: High School Teacher
Income: $45k
Residence: San Francisco
Education: Masters in Education
Other Info: Weekend musician, daytime statistician
COMPETITIVE ANALYSIS

GOOGLE MAPS

Point A to B directions for bike navigation with consideration to bike infrastructure and road type.

WAZE

“Outsmarting traffic” by collecting and sharing real-time information from drivers. Data sharing component allows users to alert other users of traffic, accidents, police activity, etc.

GET THERE BY BIKE

App intends to help commuters get from A to B while providing information or iconography indicating elements that can make a ride “bad”.
USER FLOW, IA, FEATURES
PAPER PROTOTYPE
FLOWING THROUGH A DAY IN THE [BIKE] LIFE OF CAROLINE

HOME
- Wake up
- Silence alarm
- Check commute status + weather
- Contemplate schedule and plan for concert after work
  - [thought > action] [safe?]
  - Open app
  - Enter venue address
  - Review theft visual + ID safe zones
  - Plan to ride + park 2 blocks from venue
  - Bike to work + avoid closures
  - Park bike in office
WORK \ EOD
- Retrieve bike from office
- Open app
- Enter venue address
- Map route + check conditions
- Bike to show
- Park safely
FEATURES FOR MVP

ROUTE FORECASTING
A prompt is featured before each commute. It appears to the user before they have to think about opening the app, making it harder to forget to check the route before, thus saving time before and during a ride.

NAVIGATION
Two levels of navigation: A to B; A to B with user detours - where users are able to swipe an extension or reroute though an area that isn’t on the direct to point B route.

THEFT MAPPING
Tertiary feature which incorporates data from reported bike thefts in particular areas and creates a zoomable heat map so users can quickly glance at an area and assess safety relative to bike parking.
CONSTRAINTS

TIME

User has limited time to absorb information before embarking on ride. More time spent looking at the app beforehand = less time available for riding.

TECHNOLOGY

Step by step directions are difficult to access while biking without creating a safety hazard or requiring use of additional accessories for the bike.
- Social network integration
- Apple watch / wearable integration + direction interface
- Real time traffic data reporting
- Weather + wind map layer
Competitive Analysis

**Google Maps**
- Clean, comforting, steady information.
- Visuals and apps feel different.
- Makes the user feel like they are on the map.
- User interface includes live traffic overlays.
- Support for bike-to-pedestrian information.

**Strava**
- Clear and easy to use.
- Significantly cleaner look.
- Easy to read data.
- Great for running and cycling.
- Provides options to filter routes.

**Waze**
- Wholesome and fun.
- Less user interface clutter.
- Less map clutter.

**Get There By Bike**
- Clean and simple upon initial look.
- May struggle with keeping things connected to GPS.
- More connected than Google's bike maps.

**A - Ease of Navigation**
- Takes a minute to hug around the app and find what you need.
- Not as intuitive as expected.
- Not as helpful on first use.
- Navigation can be difficult or impossible.
- Strava is slightly easier to navigate.

**User Goals**
- Points A to B directions.
- For walking, running, biking.
- Not designed for cars.
- More difficult in navigating.
- Easy to record rides, but a bit confusing.
- Basing this on the app.

**Notable Features**
- Clear indication of routes.
- Infrastructure and road type.
- Visual distinction of road types in map mode.
- Visual hierarchy when in bike mode.
- Users experience banner routes based on the effects of shared information.
- Information indicating stolen bikes, safe parking, etc.

**Product Goals (User Plan)**
- Provide a full directions for cyclists with customization to bike situations.
- With social component and user feedback.

**What works well?**
- Routes follow, help to step directions.
- Multiple options to select between similar routes.
- Easy to read data.
- Provides services that are filters for each specific interest to the user.

**What can be improved?**
- Can’t pull up terrain graph in the app.
- More difficult in navigating.
- More difficulty to choose route and browse directions.
- Not as intuitive to navigate.
- Network disconnected.

**Indirect**
- Routes can be made online and through after coming from a different screen.
- Information is great — easy to identify "clues" on map and understand what obstacles are in the way.
- Information is clearly there, it’s more difficult to choose route and browse directions.
- Information is overabundant, difficult to choose route and browse directions.
- Provides context and user feedback.

**Competitive Research**
- Competitive Analysis
- What can be improved?
- What works well?
- Indirect
- What is being done?
# Detailed Persona

## Franklin

<table>
<thead>
<tr>
<th>Demographic info</th>
<th>Day in the life</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age:</strong> 26</td>
<td>Franklin just accepted a position as a high school statistics teacher in Mountain View, CA. At the end of his first week, a few of his colleagues invite him to grab dinner and drinks after school on Friday. Franklin has been driving to school from San Francisco, a change from his previous commute which was a short, lovely bike ride across a residential area of the city. Joe, a fellow math teacher, recommends that he take his bike down on the train so they can bike to the restaurant together. Friday, Franklin plans takes Joe’s advice and bikes to the train. He checks a map before setting out. Mid-way through his ride, it starts to rain. He never thinks to check because he trusts in the California drought. He pulls over to put on his raincoat and feels safety concerns after noticing a drug deal feet away on the sidewalk. He jumps back on his bike and makes it to the train station. An hour later, he arrives to class a bit wet but is in a cheery mood after having time to read and relax on the train. After work, Franklin and Joe bike to the restaurant together and relive Franklin’s successful first week.</td>
</tr>
<tr>
<td><strong>Occupation:</strong> High School Teacher</td>
<td><strong>Income:</strong> $60,000</td>
</tr>
<tr>
<td><strong>Residence:</strong> San Francisco</td>
<td><strong>Education:</strong> MS of Stats</td>
</tr>
<tr>
<td><strong>Other Info:</strong> Weekend musician, daytime statistician</td>
<td></td>
</tr>
</tbody>
</table>

## Key Goals
- Alternative commute
- Social integration
- Riding for enjoyment

## Pain Points
- Weather
- New route = more planning
- Different route = unfamiliar territory
# DETAILED PERSONA

## CAROLINE

### Demographic info

- **Age:** 32
- **Occupation:** Industrial Designer
- **Income:** $90,000
- **Residence:** San Francisco
- **Education:** College Grad
- **Other Info:** Works hard, plays hard, bikes hard.

### Day in the life

Tuesday morning, Caroline wakes up for work in her downtown San Francisco apartment. She checks her phone and realizes she’s late for a meeting that was scheduled at 11 pm the night prior. With little time to think, she scrambles to shower, eat, pack her things, and rush to the office. She’s going to check-out restaurants in her friend Rachel’s new neighborhood after work, so she contemplates whether she should bike like usual or take other transport. Last time she was in the area, she had a wheel stolen. With no time to spare, she grabs her bike and flies to the office. Mid-ride she is detoured by traffic, being forced to take unfamiliar side streets. This speed bump causes her to be 15 minutes late for her meeting with no time to stop at the espresso machine.

### Key goals
- Commute efficiency
- Travel to multiple destinations
- Keep all of the bike parts

### Pain points
- Unpredictable infrastructure
- Stress in biking vs no biking
- Safety concerns
USER FLOW SKETCH

FLOWING THROUGH A DAY IN THE [BIKE] LIFE OF CAROLINE

HOME

wake up → silence alarm → check commute status + weather → notification of route congestion → push prompt to open app → select suggested alternative route → view and absorb route

[thought > action]

[thought > action]

contemplate schedule and plan for concert after work → open app → enter venue address → review theft visual + id safe zones → plan to ride + park 2 blocks from venue

WORK

morning routine → bike to work + avoid closures → park bike in office → enter venue address → map route → check conditions → bike to show → park safely

WORK 1, EOD

retrieve bike from office → open app → enter venue address
FEATURE PRIORITIZATION
IA CARD SORTING
Navigation information map

Provides step-by-step directions from input field on previous page. Global navigation bar breaks down into more info/features for user.

1. Map

2. Step-by-step directions

3. Link to theft screen
   Directs user to theft heat map

4. User created route
   Links to screen for users to swipe their intermediate route steps.

5. Terrain layer
   Links to a screen with terrain layer overlaid on route

6. Multiple route options
   Links to a screen which show multiple route options for A and B input

7. Back navigation
   Returns user to main navigation map
User Information
Screen unique to logged-in users. Stores personal data and
works to provide personalized information to users.

1. Navigation
   The map screen is the heart of the app. Logged-in
   users are transported there after storing and reviewing
   personal data.

2. Username and photo
   Personalized to each user. Indicates user is logged in
   and welcomes them to their information portal.

3. Store my commute
   Leads to logging the user’s commute so that push
   notifications can be tailored to route.

4. Stored rides
   Space for storing common or newly discovered rides for
   future recollection.

5. My bike
   Space to store bike(s) mfr, model, serial number, and
   photos in case of theft.
Create Your Own Route

Users can add a desired detour to an “A to B” route by swiping the map.

1. Map

2. Swipe zone
   Swipe anywhere on the map to generate a new route.

3. Starting point
   Input field. Current destination or starting destination for route.

4. Created route
   Step-by-step route generated by finger swipe.

5. Ending point/final destination
   Input field

6. Link to theft screen
   Directs user to theft heat map

7. Back navigation
   Returns user to main navigation map