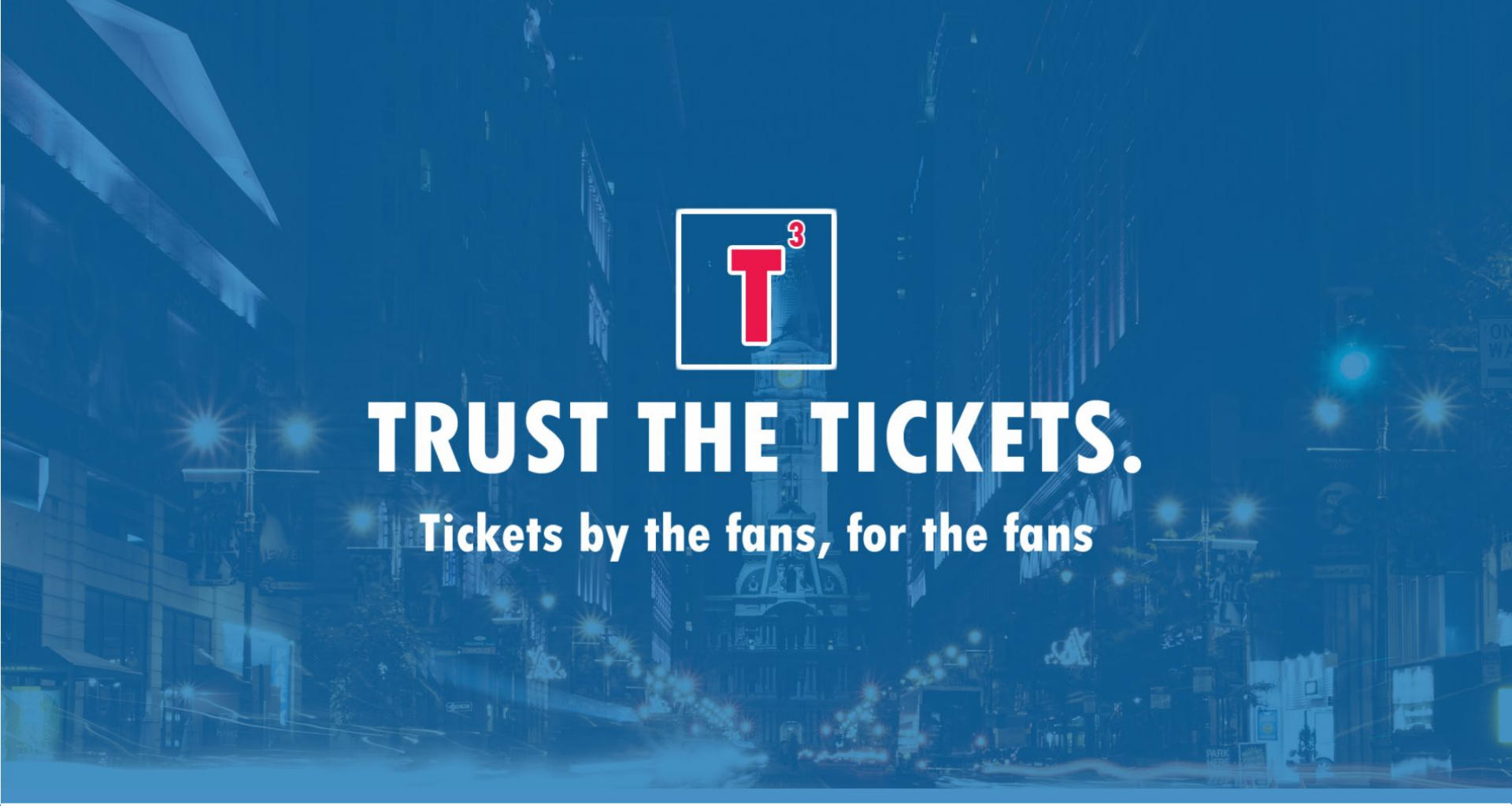

T3
TRUST THE TICKETS.
Tickets by the fans, for the fans

Senior Project Demo

Anthony Orio,
Chris McKane,
Curtis Baillie,
Derek Gaffney,
Jon D’Alonzo,
Tom Harker

25% - 35 %

Is the “service” charge most ticket websites charge

Project Background

- Fans are always looking to buy & sell tickets for their favorite sports teams
- High-profile ticket sites like Ticketmaster and StubHub exist, but...
    - These sites impose hefty fees to process transactions between local fans
        - Typically between 15% and 25% for the buyer, and at least 10% for the seller
    - Finding tickets can take a large amount of time, and these websites often don't offer customized information for each team/venue
- Alternative sites like Craigslist don't garner as much user trust

Our Goal:

- To create a website that allowed Philadelphia sports fans (specifically 76ers fans) to purchase tickets easily, with more knowledge of what they are getting, and with much cheaper fees.
- Accomplished this by:
  - Filter tickets based on perks specific to 76ers games, such as Early Entry Access.
  - Charging buyers a processing fee that is less than half of Stubhub's fee.
  - Creating a simpler way to find the game you want to go to, and the tickets you want for that game.

Customer Use Cases:

- Season ticket member can list tickets
  - Can select ticket attributes for their listing, such as aisle, handicap, or early entry
- Prospective buyer can search for a game:
  - By team
  - Using the calendar.
  - This set up allows the customer to always be able to get to the game that they want with 3 clicks.
- Buyer can utilize filtering to quickly find the tickets they’re looking for
- Buyer can easily purchase and see all fees on their checkout page

Technologies

Frontend

- React.js using create-react-app
- React-Bootstrap UI Components
  - Responsible for user interface, interaction, and presentation

Backend

- Python REST API service using Flask
  - Serves data from MySQL to React

Database

- MySQL

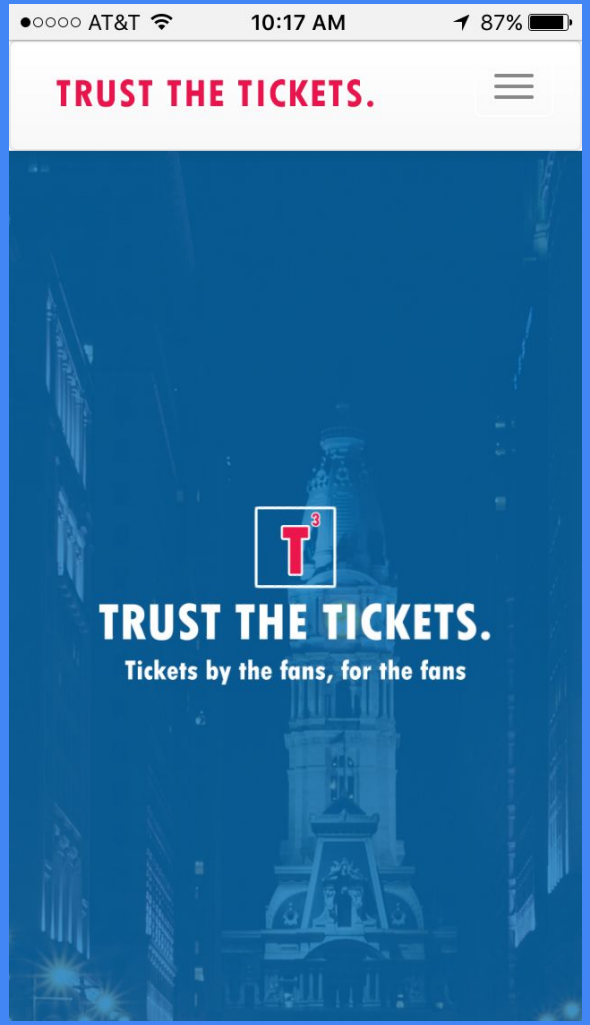
Hosting

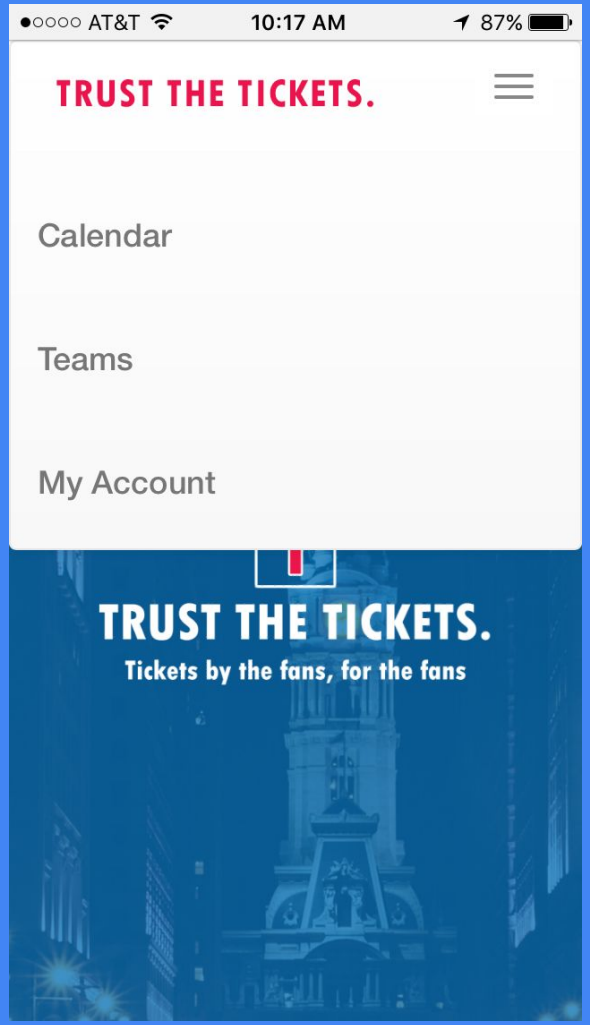
- Amazon AWS
  - EC2, RDS, VPC, S3

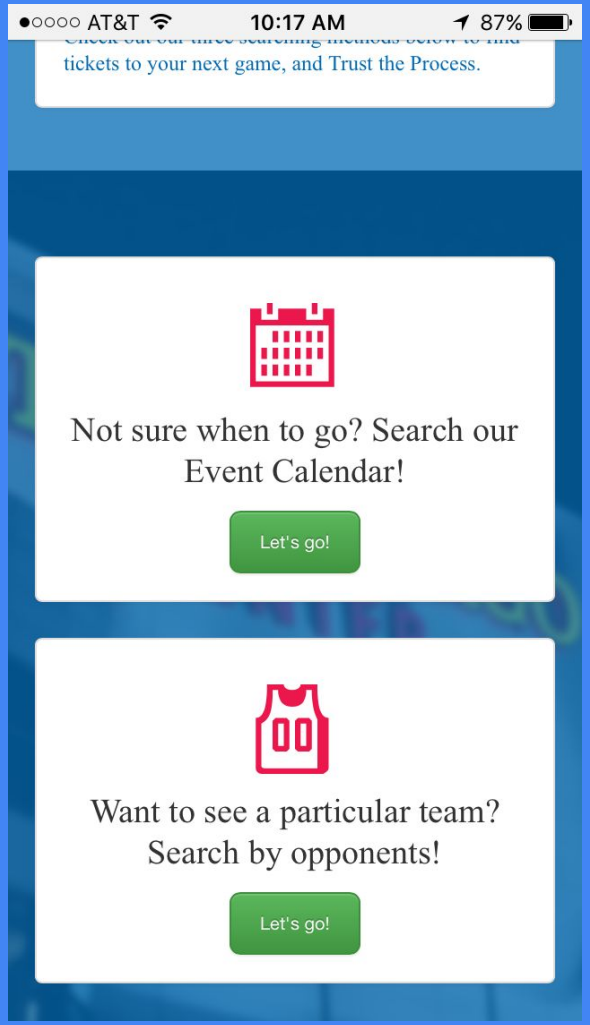
Demo

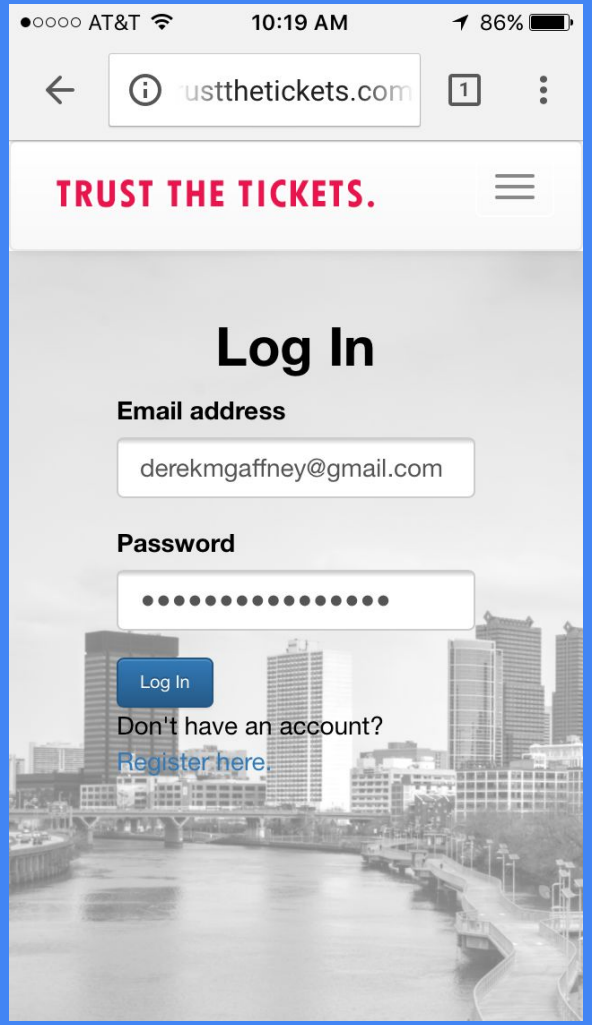
TrustTheTickets.com

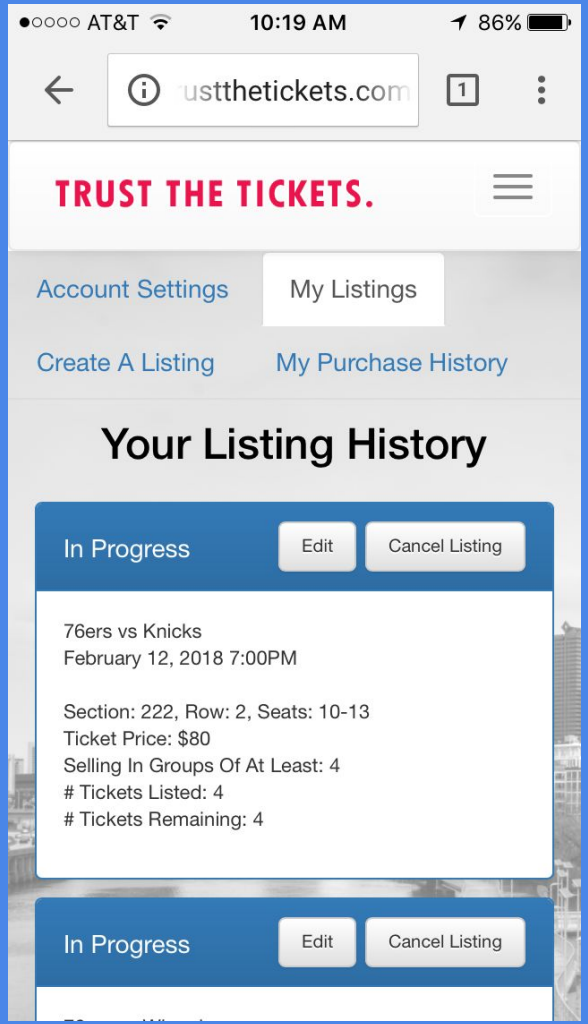
Mobile Screenshots

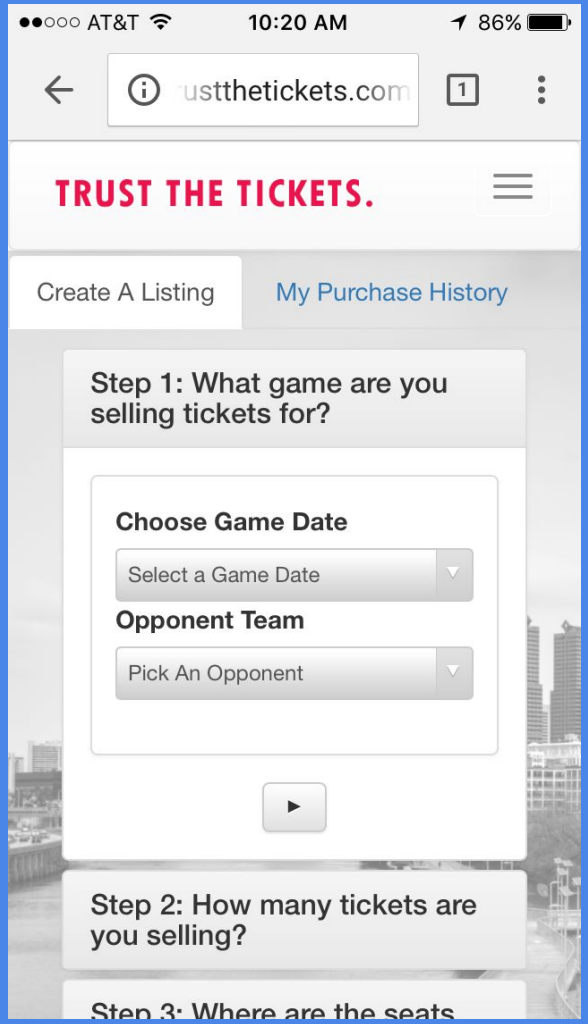

AT&T
10:17 AM
87%
TRUST THE TICKETS.
TRUST THE TICKETS.
Tickets by the fans, for the fans

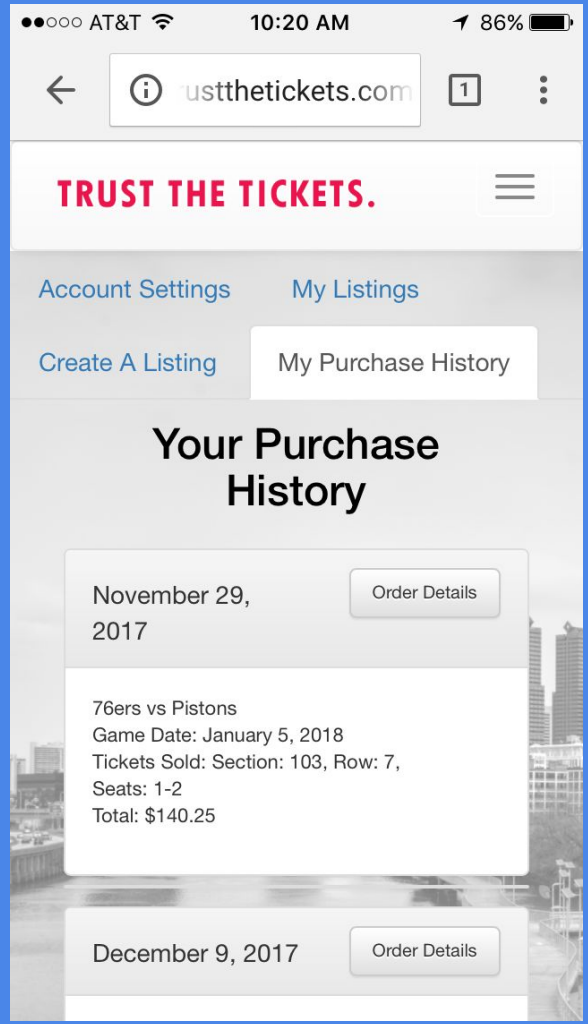

AT&T
10:17 AM
87%
TRUST THE TICKETS.
Calendar
Teams
My Account
TRUST THE TICKETS.
Tickets by the fans, for the fans

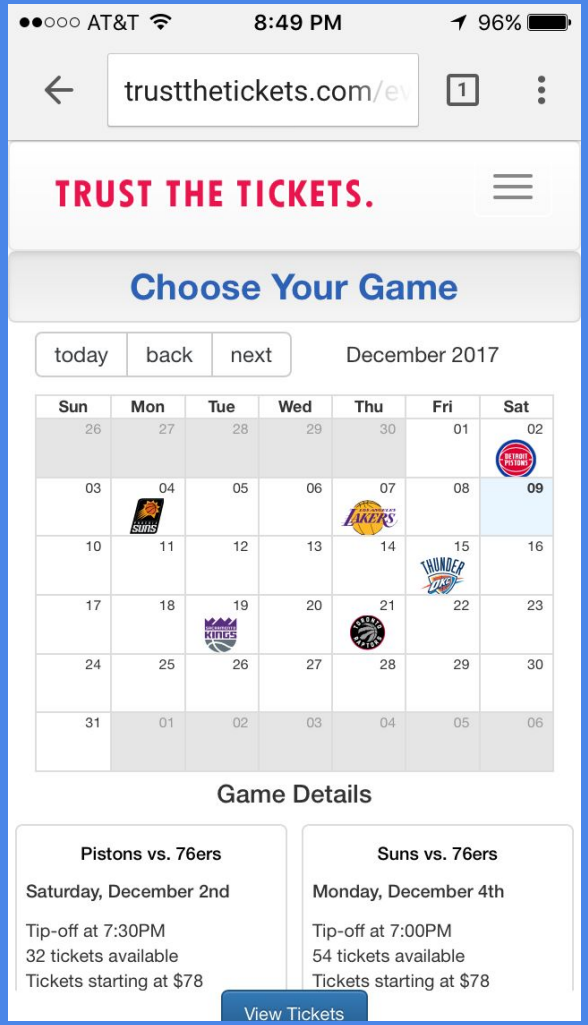

AT&T
10:17 AM
87%
tickets to your next game, and Trust the Process.
Not sure when to go? Search our Event Calendar!
Let's go!
Want to see a particular team? Search by opponents!
Let's go!

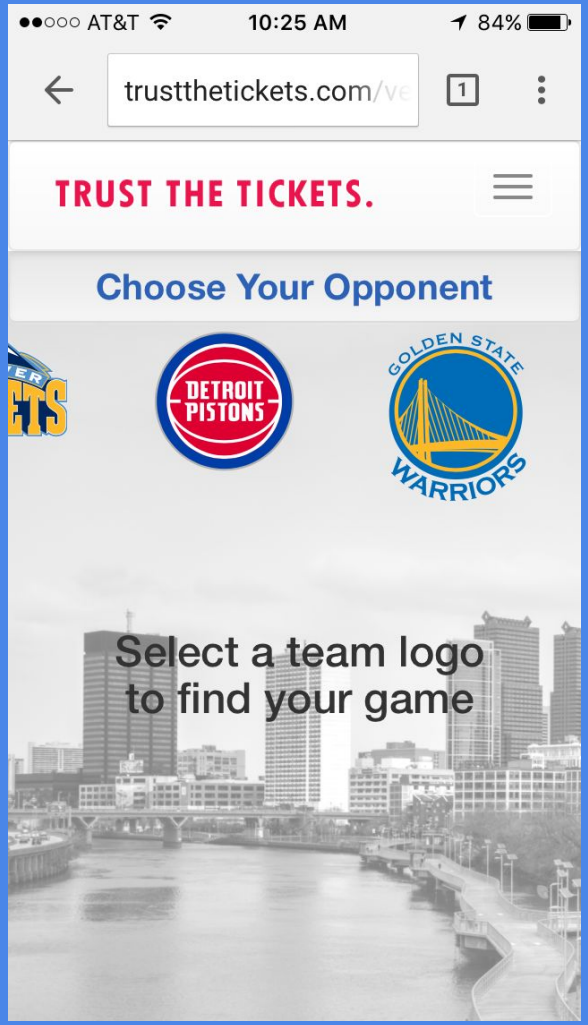

●○○○○ AT&T
10:19 AM
86%
ustthetickets.com
1
TRUST THE TICKETS.
Log In
Email address
derekmgaffney@gmail.com
Password
Log In
Don't have an account?
Register here.

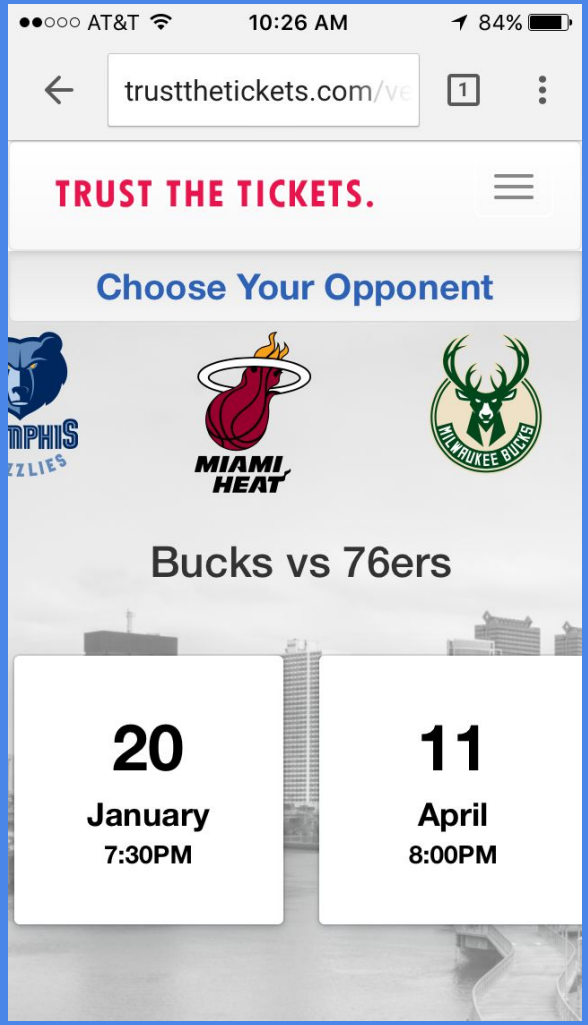

●○○○○ AT&T
10:19 AM
86%
ustthetickets.com
TRUST THE TICKETS.
Account Settings
My Listings
Create A Listing
My Purchase History
Your Listing History
In Progress
Edit
Cancel Listing
76ers vs Knicks
February 12, 2018 7:00PM
Section: 222, Row: 2, Seats: 10-13
Ticket Price: $80
Selling In Groups Of At Least: 4
Tickets Listed: 4
Tickets Remaining: 4
In Progress
Edit
Cancel Listing

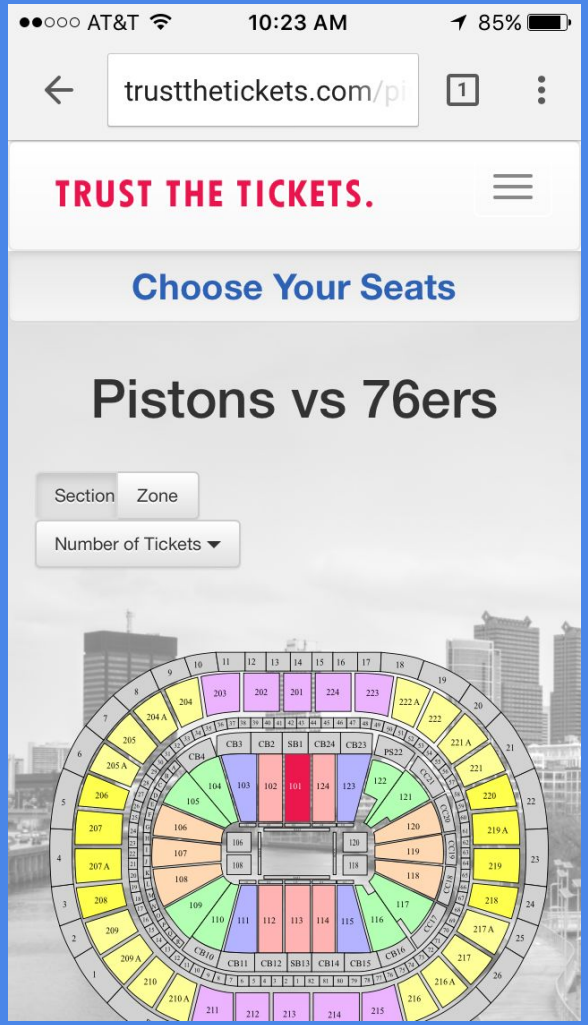

●●○○○ AT&T
10:20 AM
86%
ustthetickets.com
TRUST THE TICKETS.
Create A Listing
My Purchase History
Step 1: What game are you selling tickets for?
Choose Game Date
Select a Game Date
Opponent Team
Pick An Opponent
Step 2: How many tickets are you selling?

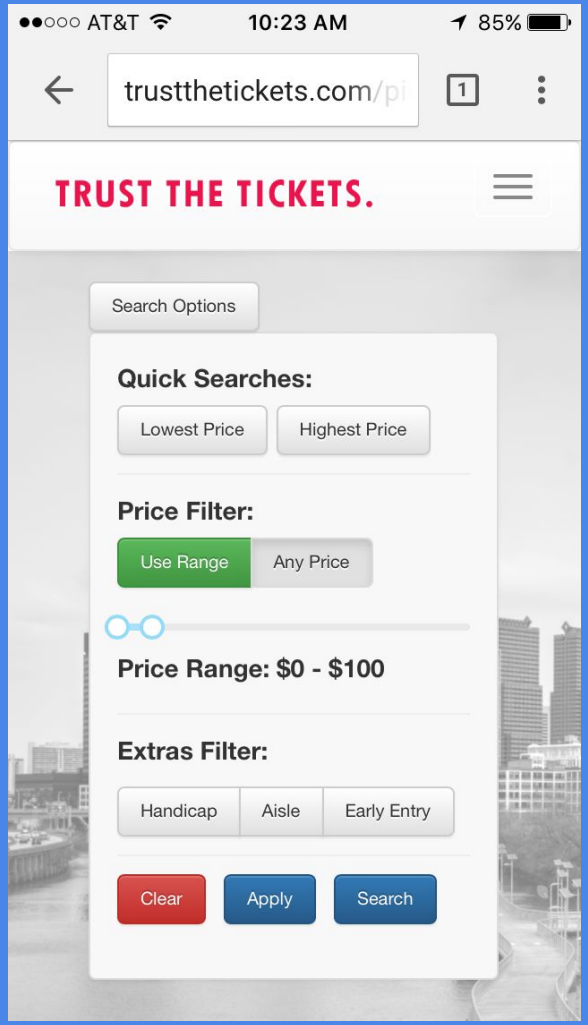

●●○○○ AT&T
10:20 AM
86%
ustthetickets.com
TRUST THE TICKETS.
Account Settings
My Listings
Create A Listing
My Purchase History
Your Purchase History
November 29, 2017
Order Details
76ers vs Pistons
Game Date: January 5, 2018
Tickets Sold: Section: 103, Row: 7,
Seats: 1-2
Total: $140.25
December 9, 2017
Order Details

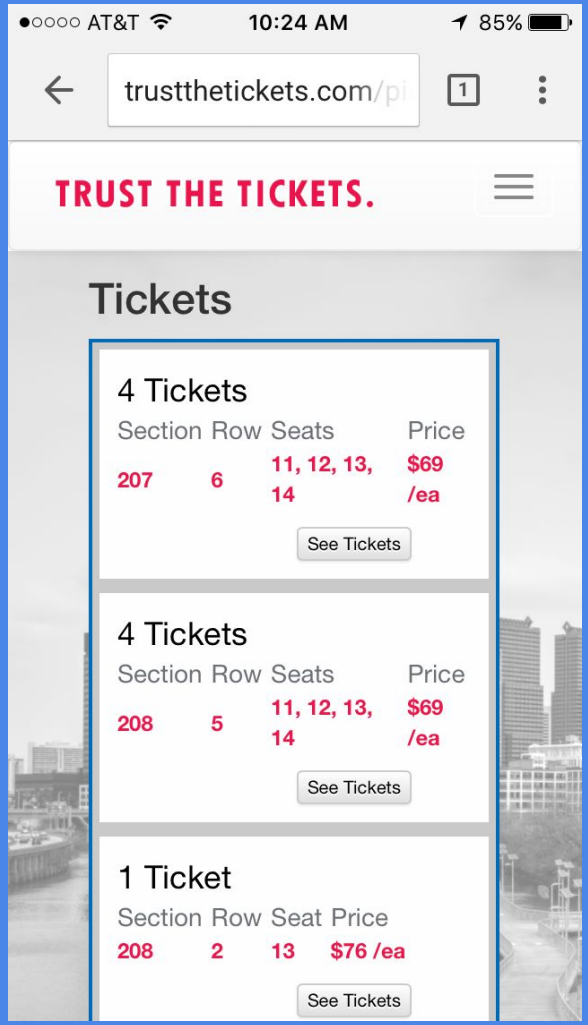

AT&T 8:49 PM 96%
trustthetickets.com/ev
TRUST THE TICKETS.
Choose Your Game
today
back
next
December 2017
Sun Mon Tue Wed Thu Fri Sat
26 27 28 29 30 01 02
03 04 05 06 07 08 09
10 11 12 13 14 15 16
17 18 19 20 21 22 23
24 25 26 27 28 29 30
31 01 02 03 04 05 06
Game Details
Pistons vs. 76ers
Saturday, December 2nd
Tip-off at 7:30PM
32 tickets available
Tickets starting at $78
Suns vs. 76ers
Monday, December 4th
Tip-off at 7:00PM
54 tickets available
Tickets starting at $78
View Tickets

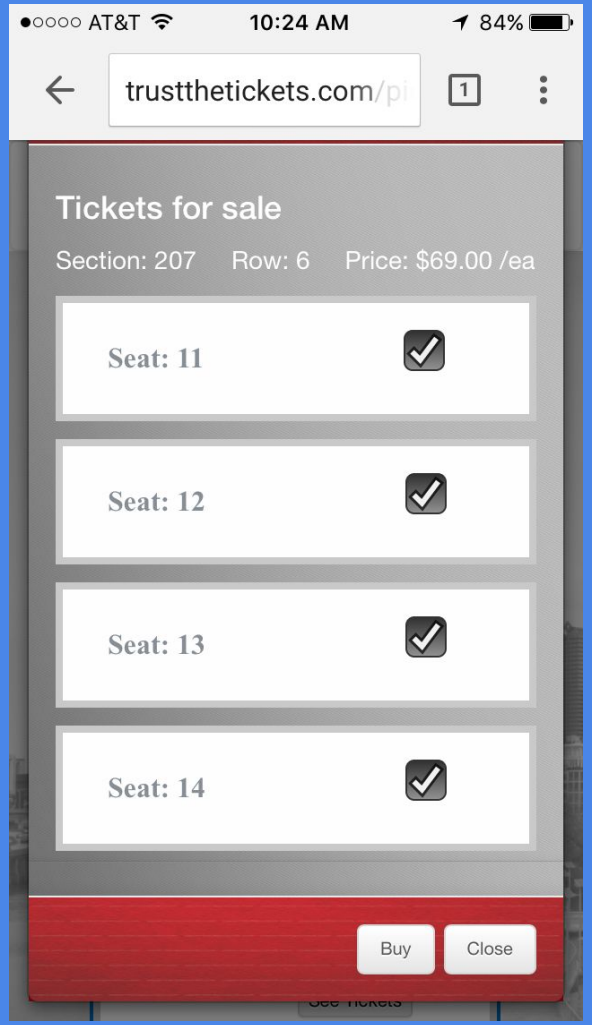

AT&T 10:25 AM 84%
trustthetickets.com/ve
TRUST THE TICKETS.
Choose Your Opponent
DETROIT PISTONS
GOLDEN STATE WARRIORS
Select a team logo
to find your game

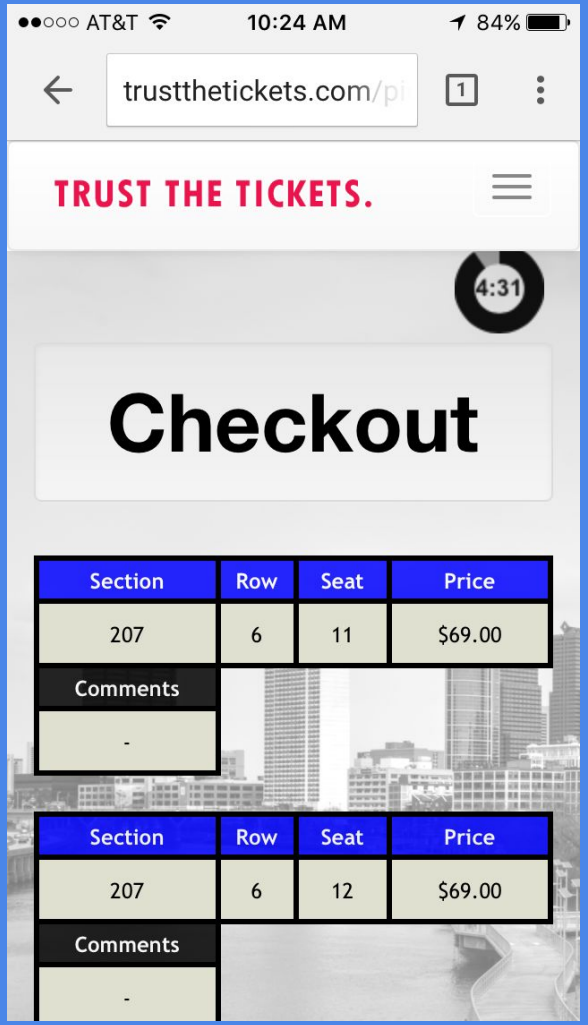

AT&T 10:26 AM 84%
trustthetickets.com/ve
TRUST THE TICKETS.
Choose Your Opponent
MIAMI HEAT
MILWAUKEE BUCKS
Bucks vs 76ers
20
January
7:30PM
11
April
8:00PM

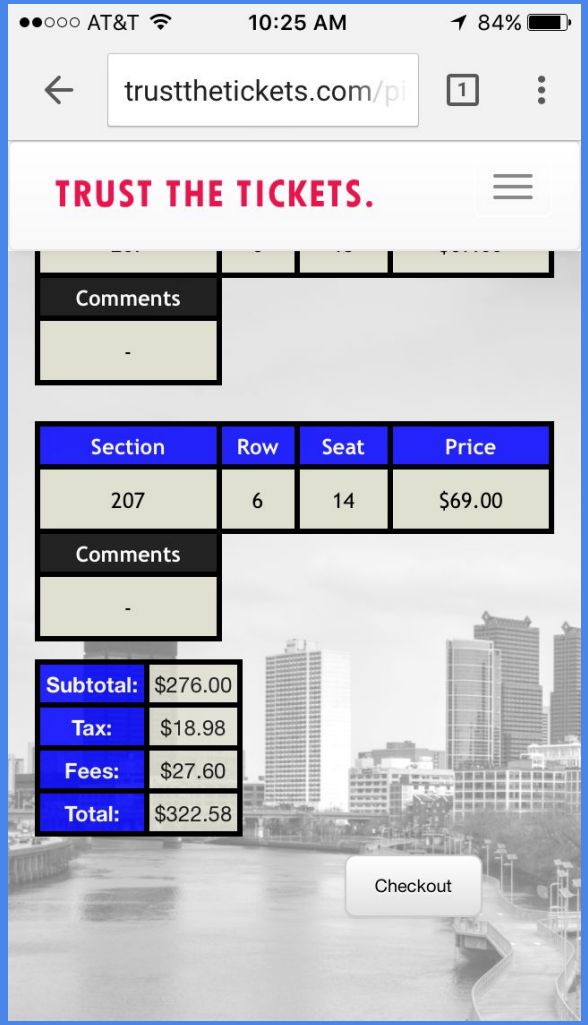

●●○○○ AT&T
10:23 AM
85%
trustthetickets.com/pi
TRUST THE TICKETS.
Choose Your Seats
Pistons vs 76ers
Section
Zone
Number of Tickets

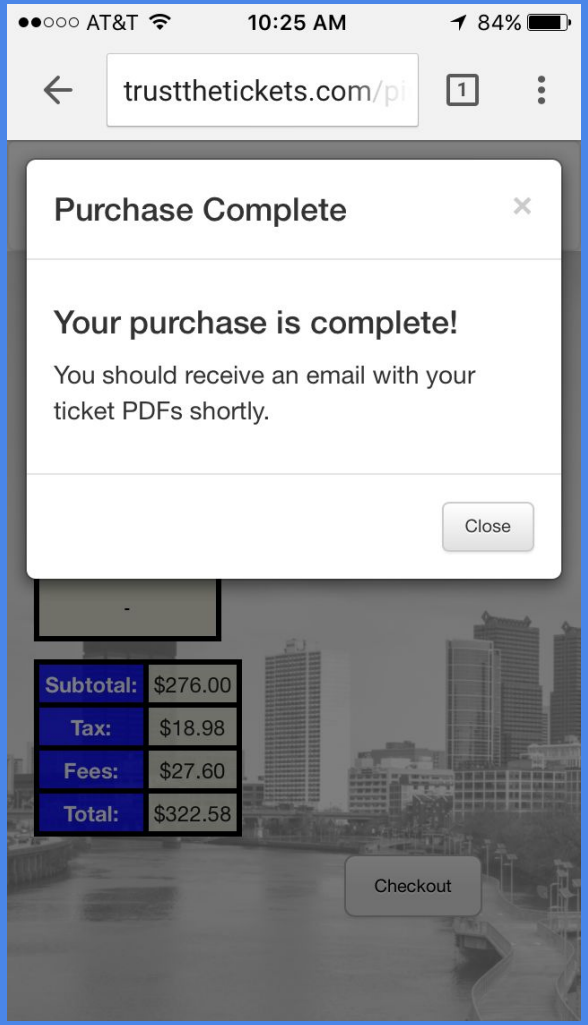

●●○○○ AT&T
10:23 AM
85%
trustthetickets.com/pi
TRUST THE TICKETS.
Search Options
Quick Searches:
Lowest Price
Highest Price
Price Filter:
Use Range
Any Price
Price Range: $0 - $100
Extras Filter:
Handicap
Aisle
Early Entry
Clear
Apply
Search


●○○○○ AT&T
10:24 AM
85%
trustthetickets.com/pi
TRUST THE TICKETS.
Tickets
4 Tickets
Section Row Seats Price
207 6 11, 12, 13, 14 $69 /ea
See Tickets
4 Tickets
Section Row Seats Price
208 5 11, 12, 13, 14 $69 /ea
See Tickets
1 Ticket
Section Row Seat Price
208 2 13 $76 /ea
See Tickets


●○○○○ AT&T
10:24 AM
84%
trustthetickets.com/pi
1
Tickets for sale
Section: 207
Row: 6
Price: $69.00 /ea
Seat: 11
Seat: 12
Seat: 13
Seat: 14
Buy
Close


AT&T 10:24 AM 84%
trustthetickets.com/pi
TRUST THE TICKETS.
4:31
Checkout
Section Row Seat Price
207 6 11 $69.00
Comments
-
Section Row Seat Price
207 6 12 $69.00
Comments
-


AT&T 10:25 AM 84%
trustthetickets.com/pi
TRUST THE TICKETS.
Comments
-
Section Row Seat Price
207 6 14 $69.00
Comments
-
Subtotal: $276.00
Tax: $18.98
Fees: $27.60
Total: $322.58
Checkout


AT&T 10:25 AM 84%
trustthetickets.com/pi
TRUST THE TICKETS.
Purchase Complete
Your purchase is complete!
You should receive an email with your ticket PDFs shortly.
Close
Subtotal: $276.00
Tax: $18.98
Fees: $27.60
Total: $322.58
Checkout

Interesting Technology Components

PDF Interface

For a ticket website, uploading tickets and emailing tickets is a requirement.

Since buyers can buy individual tickets in listings, tickets must be split somehow

PDF Interface

Utilized AWS S3, Python Boto and PyPDF libraries to solve this problem

- On listing creation, user uploads a pdf file with x tickets
  - PyPDF library splits the pdf file into individual files, 1 per ticket
  - Use Boto library to upload each ticket to our AWS S3 bucket with its unique ticket_id as the key

Type a prefix and press Enter to search. Press ESC to clear.

Upload + Create folder More

US East (N. Virginia)

Viewing 1 to 71

Name	Last modified	Size	Storage class
2468	Dec 8, 2017 9:45:35 PM GMT-0500	69.6 KB	Standard
2469	Dec 8, 2017 9:45:35 PM GMT-0500	69.6 KB	Standard
2470	Dec 8, 2017 9:45:35 PM GMT-0500	69.6 KB	Standard
2471	Dec 8, 2017 9:45:35 PM GMT-0500	69.6 KB	Standard
2472	Dec 8, 2017 9:45:35 PM GMT-0500	69.6 KB	Standard
2473	Dec 8, 2017 9:45:35 PM GMT-0500	69.6 KB	Standard
2474	Dec 8, 2017 9:45:35 PM GMT-0500	69.6 KB	Standard
2475	Dec 8, 2017 9:45:35 PM GMT-0500	69.5 KB	Standard

PDF Interface

Utilized AWS S3, Python Boto and PyPDF libraries to solve this problem

- During transaction
  - Boto library used to download each ticket in the transaction
  - PyPDF library bundles the ticket pdf files into one pdf file
  - That total pdf file is then emailed to the buyer

Handles the pdf file interface seamlessly

Handling Race Conditions

For this project, we had to consider the case where two or more users simultaneously attempt to purchase the same tickets.

Two part strategy

- Trigger procedure to set a database field, called ticket status, to “Locked” for five minutes.
- If the user purchases the ticket, then change ticket status to sold. Else if the user backs out or time runs out, then return ticket status to available.

Developing for Desktop and Mobile

- React-Bootstrap
  - Look and feel of Twitter Bootstrap
  - Uses Facebook React.js Framework
- Use of CSS and media queries

Personal Takeaways

Anthony: “Create solid code as it may be used in other parts of the website.”

Chris: “I have a stronger understanding for web development that I can use.”

Curtis: “Check for libraries that already do what you want BEFORE creating it.”

Derek: “There is never enough time for design… But the data model held up!”

Jon: “Learn the language before, instead of using the method, ‘learn as you go’.”

Tom: “Develop for mobile first!”

The End

Questions?

Thank you!