

hello.
we are



“MOST OF THE WORLD WILL MAKE DECISIONS
BY EITHER GUESSING OR USING THEIR GUT.
THEY WILL BE EITHER LUCKY OR WRONG.”

SUHAIL DOSHI, CEO, MIXPANEL

Motionloft

Eric Bueman, VP of Sales

S9324 Benefits of Behavior Analytics at the Edge for the Retail Market
Talk - Monday, 3/18/19 | 11:00 AM



simplify complexity

We built a sensor platform powered by computer vision to capture, interpret, and present the complexity of a physical scene.

Our all-in one intelligence platform goes even further with versatile features that learn from the environment and adapt to give you better insights.

Motionloft



4 PATENTS AND MULTIPLE AWARDS

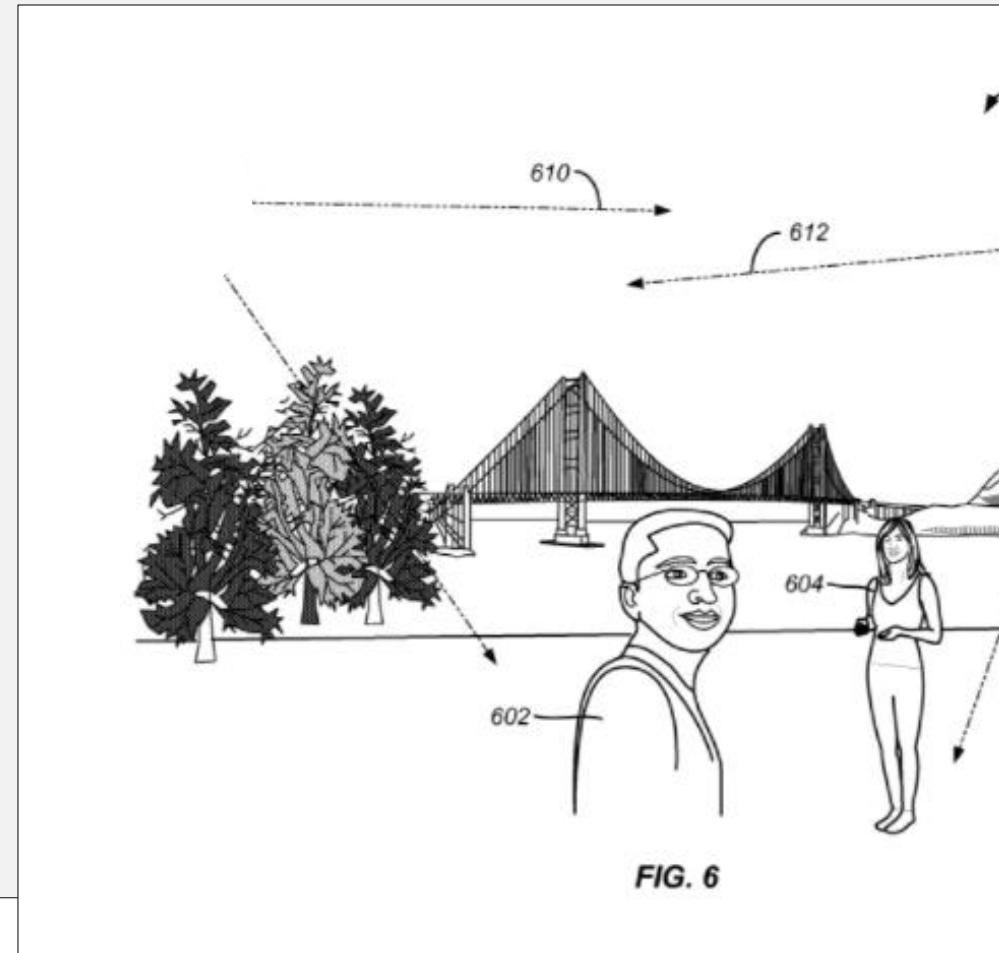


FIG. 6

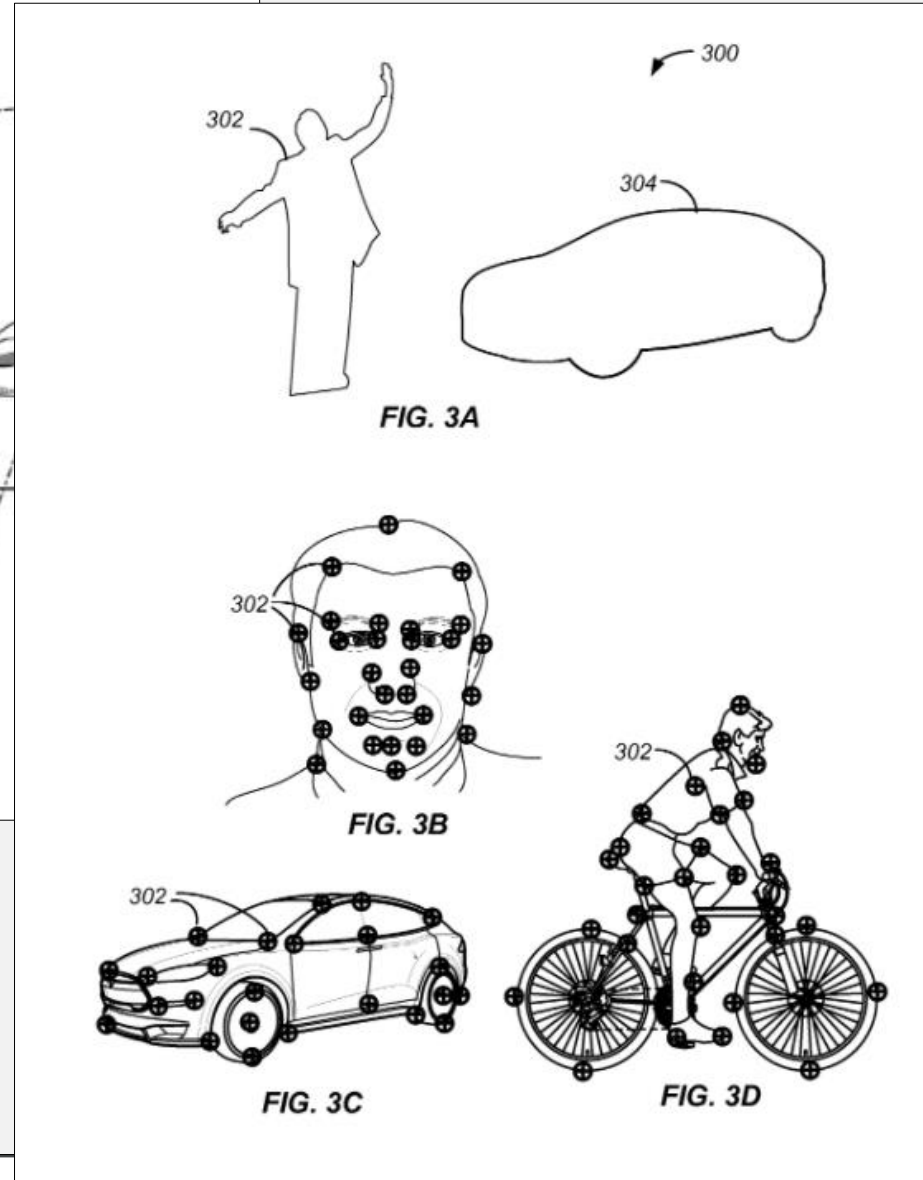


FIG. 3A

FIG. 3B

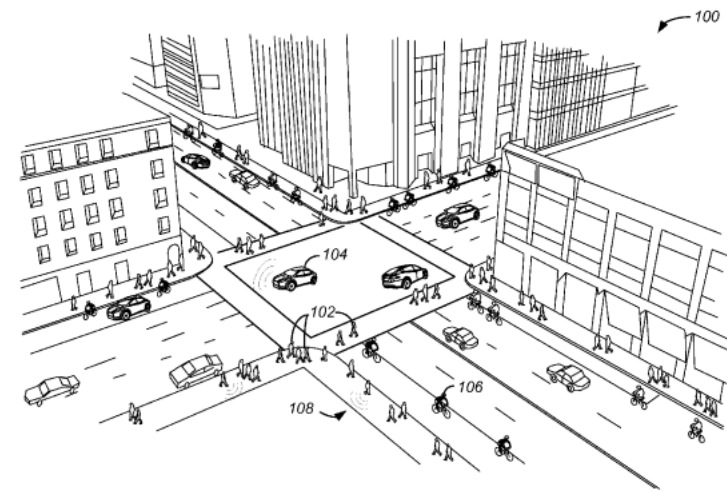
FIG. 3C

FIG. 3D

United States
Patent Application Publication
 Cuban et al.
 (19) Pub. No.: US 2017/0053169 A1
 (43) Pub. Date: Feb. 23, 2017

(54) **OBJECT DETECTION AND ANALYSIS VIA UNMANNED AERIAL VEHICLE**
 (71) Applicant: Motionloft, Inc., San Francisco, CA (US)
 (72) Inventors: Mark Cuban, Dallas, TX (US); Joyce Reisman, San Francisco, CA (US); Jeffrey Orion Pritchard, San Francisco, CA (US)
 (21) Appl. No.: 14/831,739
 (22) Filed: Aug. 20, 2015

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 (51) Int. Cl. G06K 9/00 (2006.01); G05D 1/02 (2006.01); H04N 5/232 (2006.01); H04N 13/02 (2006.01); H04N 7/18 (2006.01); G06K 9/52 (2006.01)
 (52) U.S. CL. CPC: G06K 9/00664 (2013.01); H04N 7/185 (2013.01); G06K 9/52 (2013.01); H04N 5/23245 (2013.01); H04N 13/0203 (2013.01); G05D 1/0202 (2013.01)
 (57) **ABSTRACT**
 An unmanned aerial vehicle (UAV) can include one or more cameras for capturing image data within a field of view that depends in part upon the location and orientation of the UAV. At least a portion of the image data can be processed on the UAV to locate objects of interest, such as people or cars, and use that information to determine where to fly the drone in order to capture higher quality image data of those or other such objects. Once identified, the objects of interest can be counted, and the density, movement, location, and behavior of those objects identified. This can help to determine occurrences such as traffic congestion or unusual patterns of pedestrian movement, as well as to locate persons, fires, or other such objects. The data can also be analyzed by a remote system or service that has additional resources to provide more accurate results.



*Patents Pending

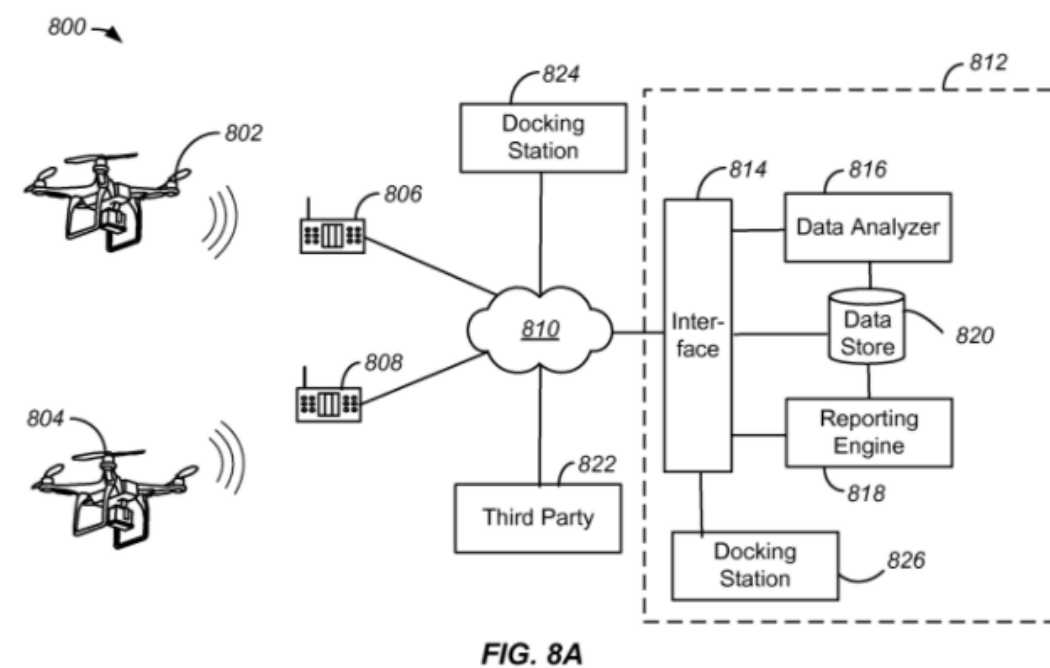
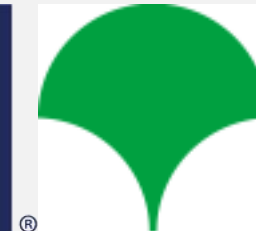


FIG. 8A



TOKYO
METROPOLITAN
GOVERNMENT

2018 Accelerator Program Tech
Business Camp Tokyo

PLUGANDPLAY
 2017 IoT Program Member

PLUGANDPLAY
JAPAN
 2018 IoT Program Member



nvidia
 INCEPTION PROGRAM



US #20170053169A1, #29605507, #15790908, #15862037

2000+ locations currently
deployed across:



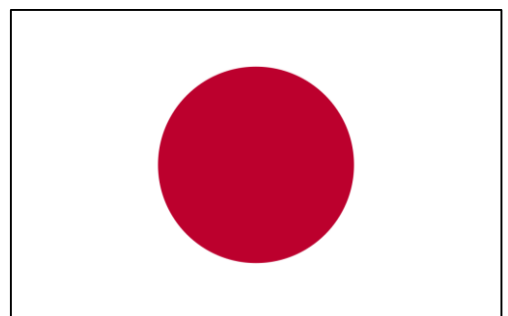
United States



Canada



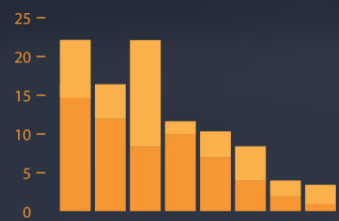
Mexico



Japan



Guam



A BETTER WAY TO COLLECT DATA

- Versatile solution
Any Industry
- Innovative design
Fully Weatherized IP 66
- Simple installation
LTE, WiFi, and Bluetooth
- NVIDIA TX 1/2 Edge Module
Can process and analyze in real time
- Privacy of the data
No chance of sensitive information being captured

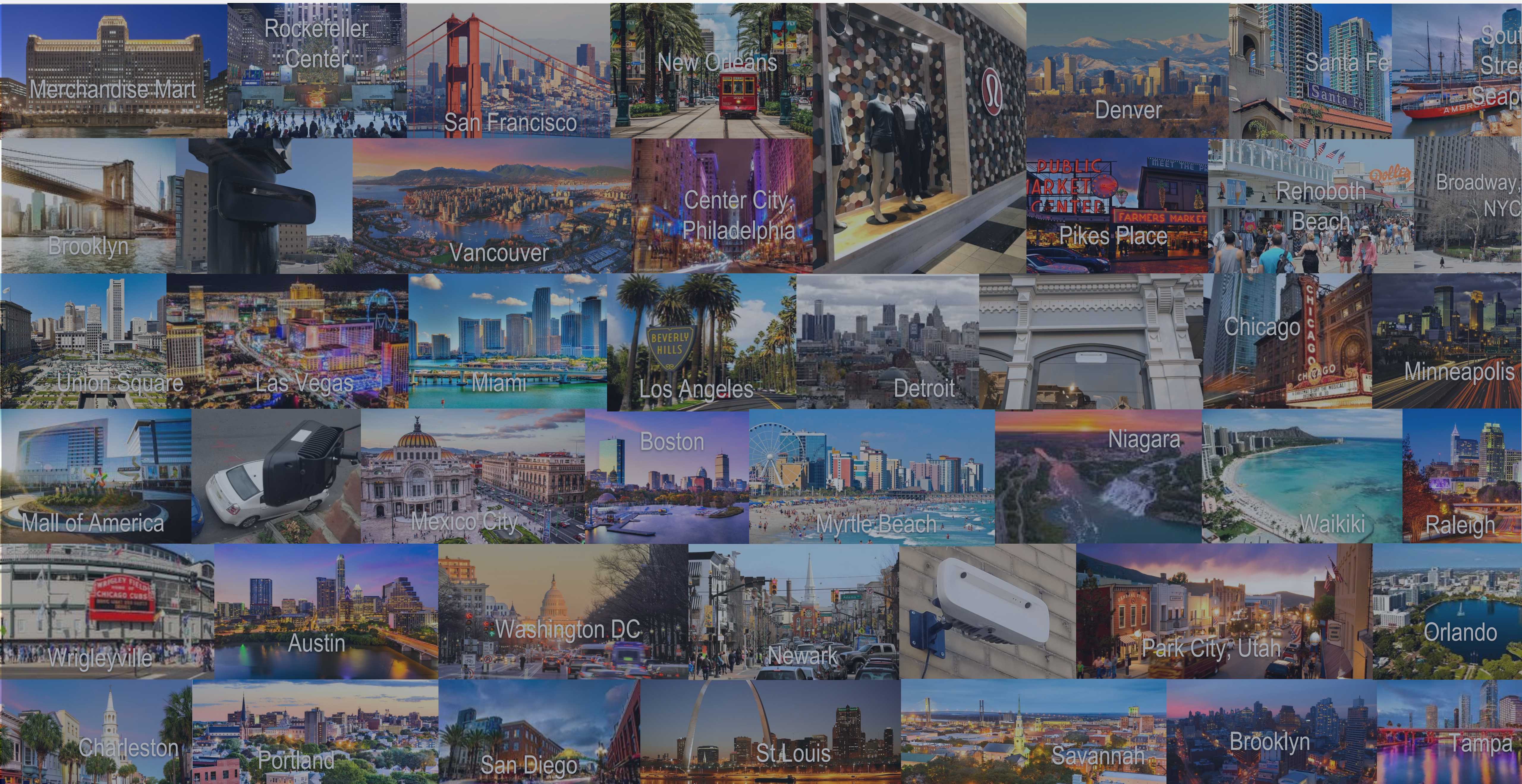


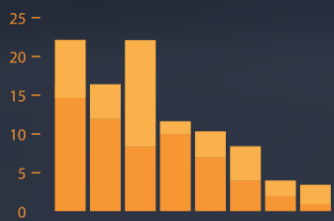


Our sensors are remote labs

They study, collect, and report data back. We continually equip our hardware with new software updates via our LTE connection to expand the depth of analytics. Adding information on demographics, consumer trends, emotional analysis, and aberrant behavior expands the power of the data set.

Motionloft Installations





Millions of image classifiers in our proprietary library

Core Capabilities Enabled by ViMo's ANNs

- Path tracking: pedestrian and vehicles trajectories
- Detailed analysis of dwell time
- Measuring occupancy (eg. length of pedestrian or vehicular queue)
- Heat map trend analysis
- Single sensor capable of detecting, tracking and classifying targets (for example: people, cars, bicycles etc.)

- Distinguish vehicle types such as: passenger cars, vans, trucks, semis, buses, bicycles and motorbikes
- Detecting groups of people, group size estimates
- Object and tracking: shopping carts, strollers, back-packs, carried objects
- Predictions; counts, pass-bys, wait time, etc.
- Path Tracking variable objects across adjacently installed sensors
- Line Queuing
- Dwell Time / Wait Time, how long an object has remained in an area
- Distinguishing Male vs Female

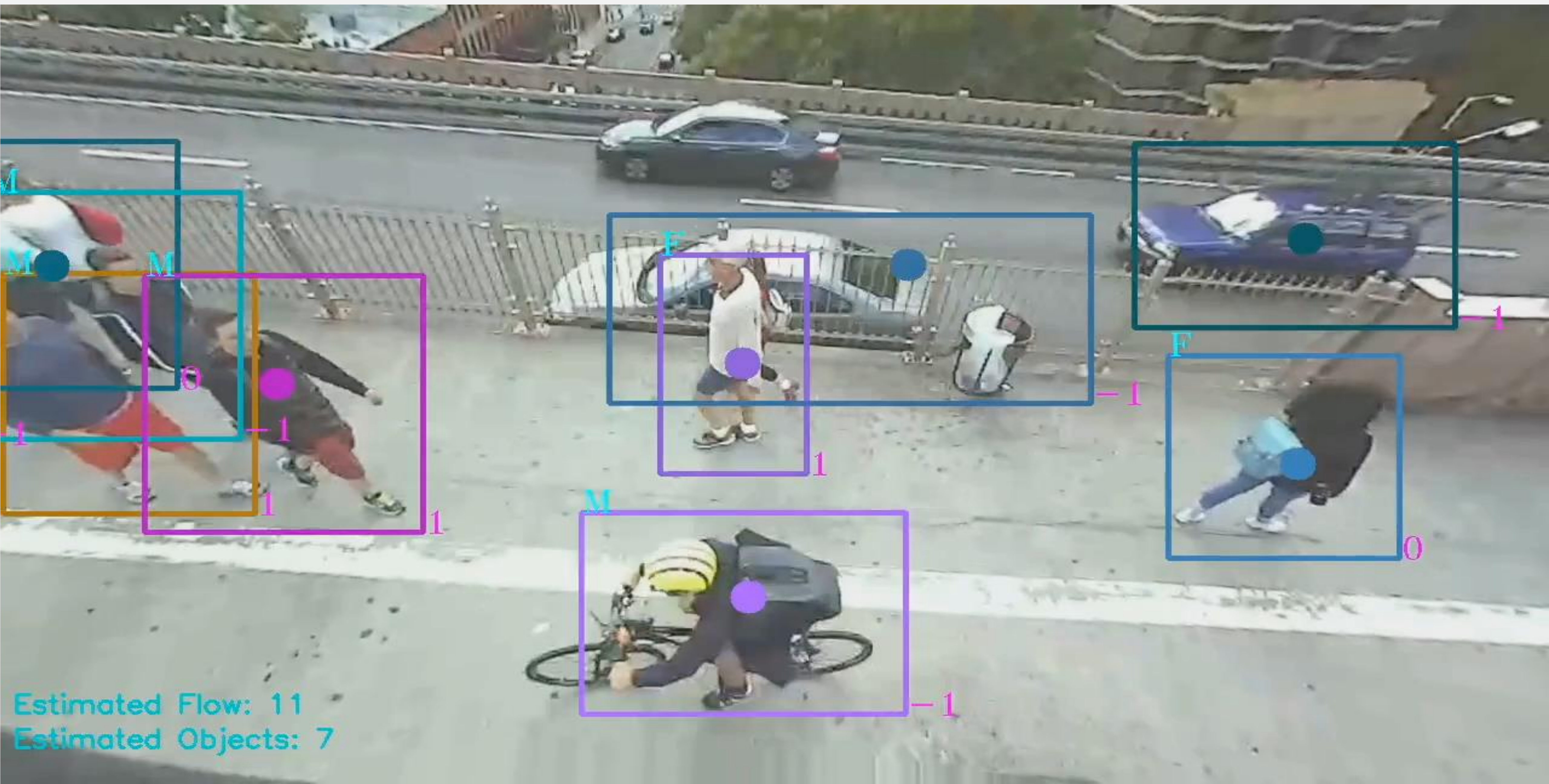


Yesterday



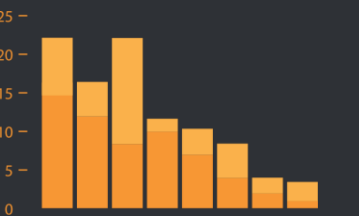
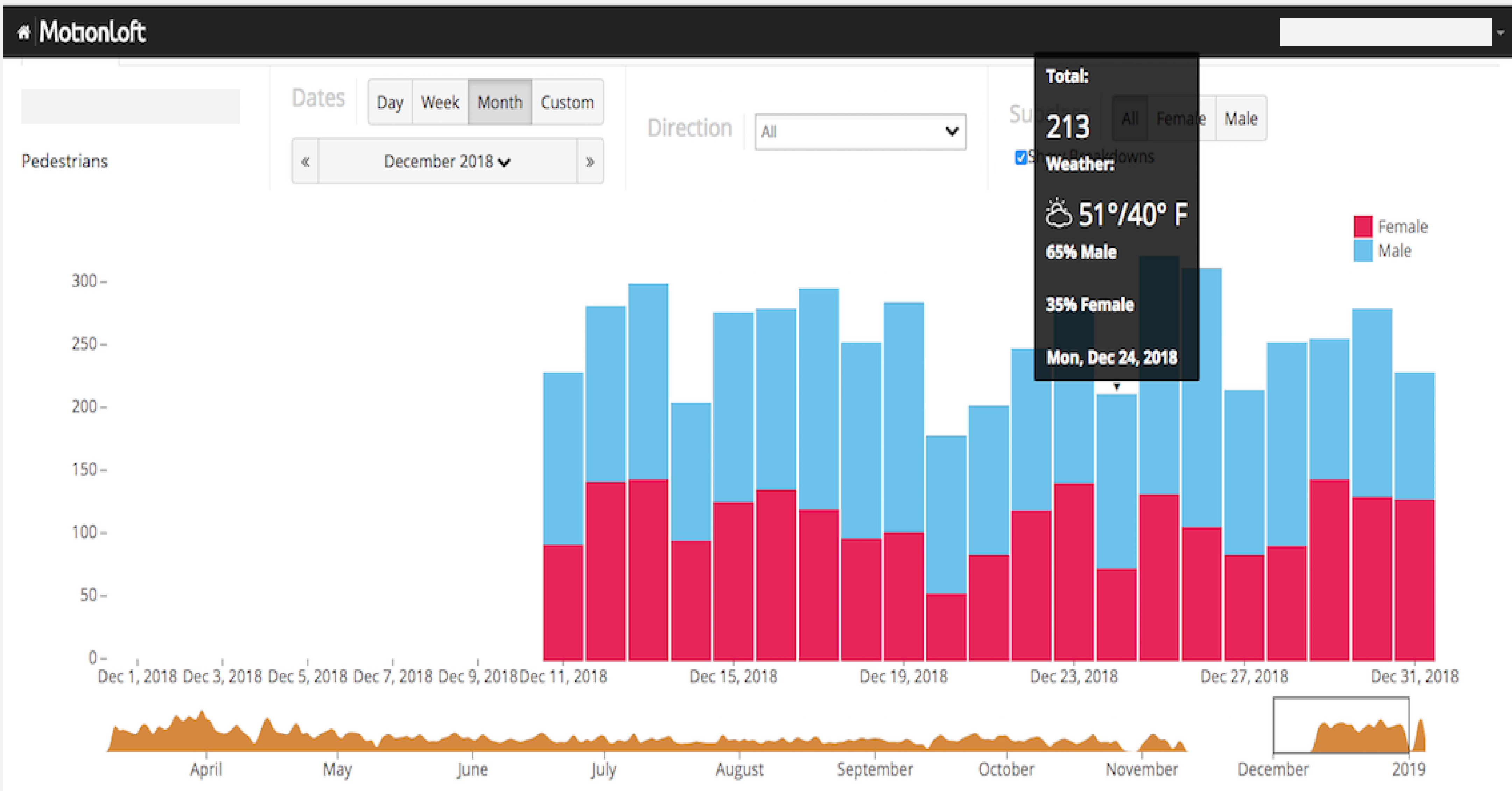
A Better Way to Collect Data

Gender & Multiple Scenes



Estimated Flow: 11
Estimated Objects: 7

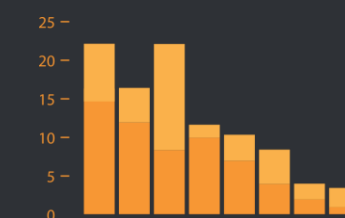
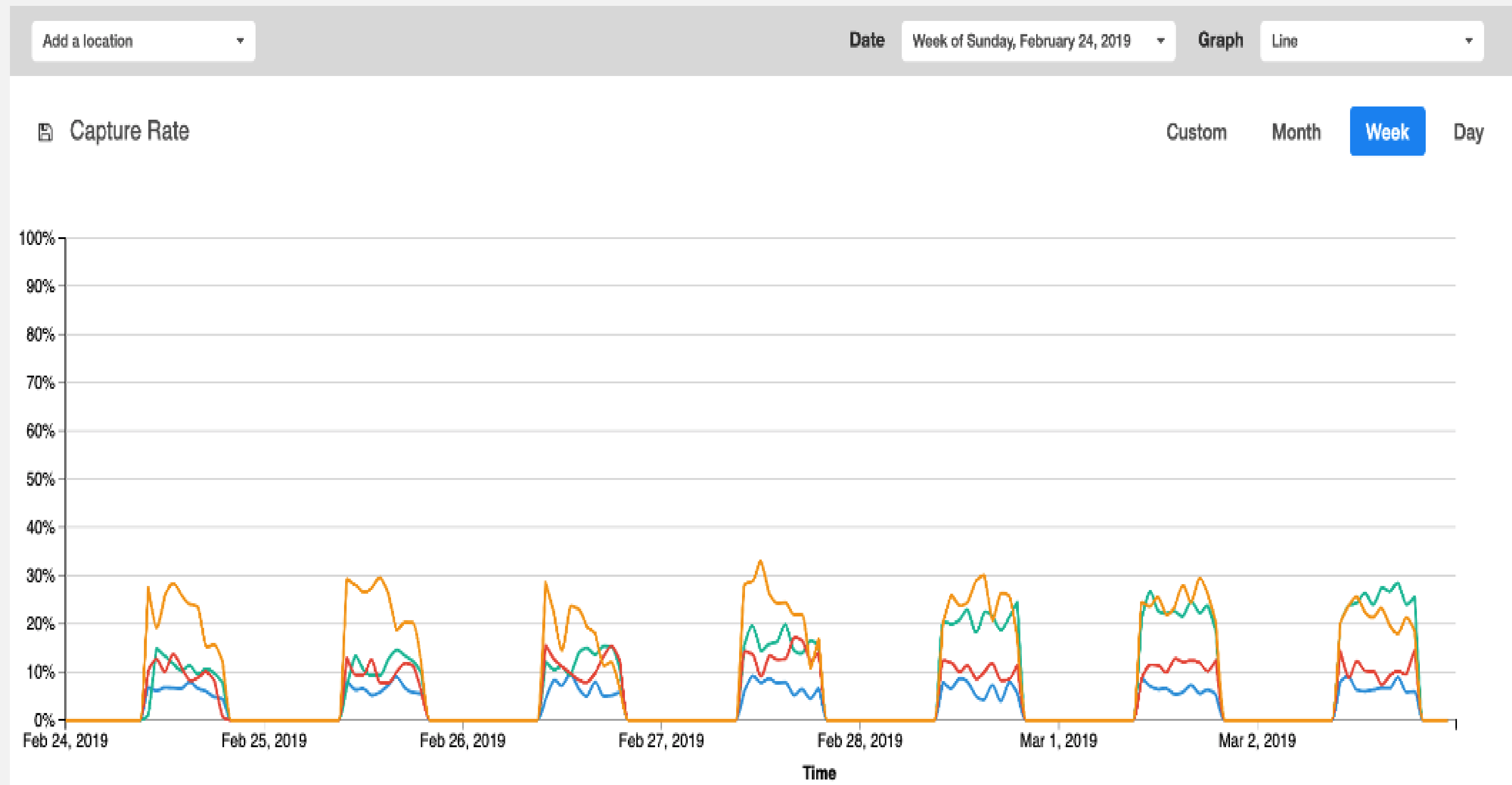
User Interface and Data Visualization with Gender



3D People Count / Abandonment

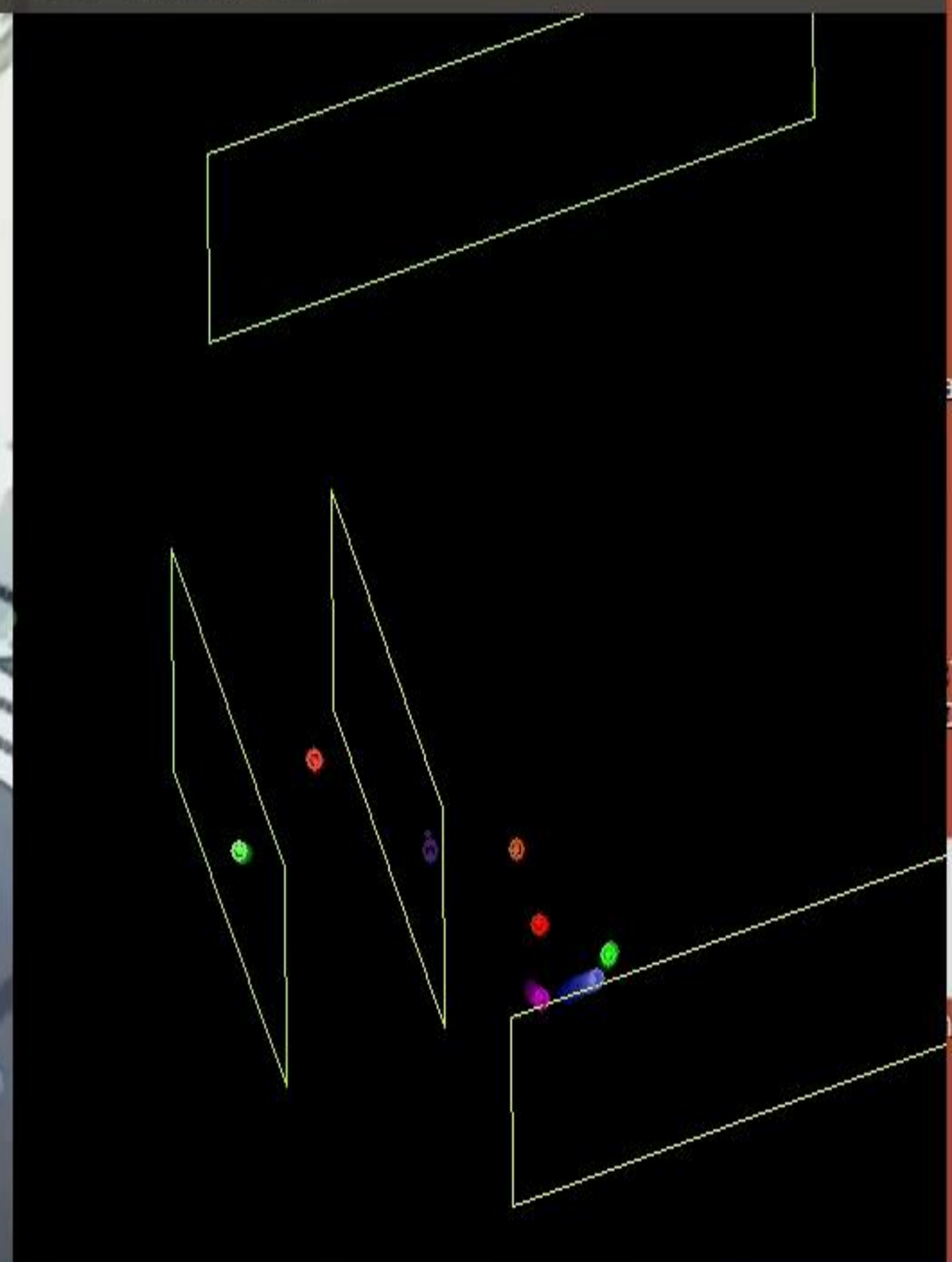


Capture Rate Acquisition Opportunity

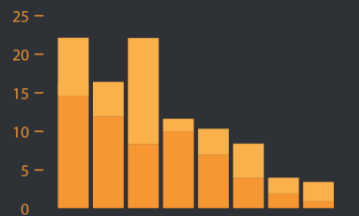




Double Shot Reportable: 6



Data Visualization for Wait time & Line length





001,199,620



Motionloft



Real-World Applications

Common Use Cases

- Retail Attraction & Repositioning
- Line Queuing / Wait Time
- Urban Pedestrian Counts
- Retail Site Selection
- Outdoor Shopping Centers
- Enclosed Malls
- Vehicle Counts
- Event Tracking
- Entertainment Venues
- Transportation Centers
- Redevelopment



Real-World Applications



- Interior window mount



- Outdoor Light Pole



- Exterior Wall



- Interior window mount



- Interior window mount



- Exterior Wall

Partners



SALES PARTNER
SMART CITIES



TECHNOLOGY PARTNER
WHAT'S INSIDE



RESALE + REFERRAL
AGREEMENTS, LTE



RESALE + REFERRAL
AGREEMENTS, LTE



RESALE + GLOBAL
INSTALLATION AGREEMENT, LTE



RESALE + INSTALLATION
AGREEMENT, POS
PARTNER

Motionloft

Full-Service Partners

Put meaningful data into action with scalable solutions that we manage every step of the way.

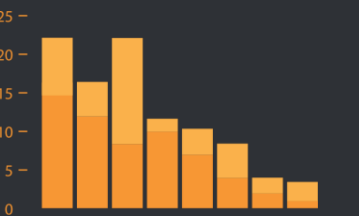
What can Motionloft do to help achieve your objectives?

- Design a custom solution to deliver the data you need
- Recommend sensor placement and most suitable technology
- Manage installation and discreetly install sensors
- Calibrate and audit the sensors for accuracy
- Set up your account and teach you how to use the dashboard
- Provide support over the lifetime of your contract

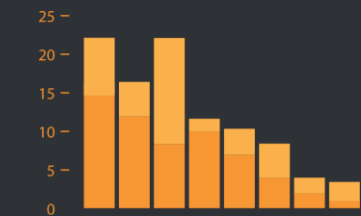
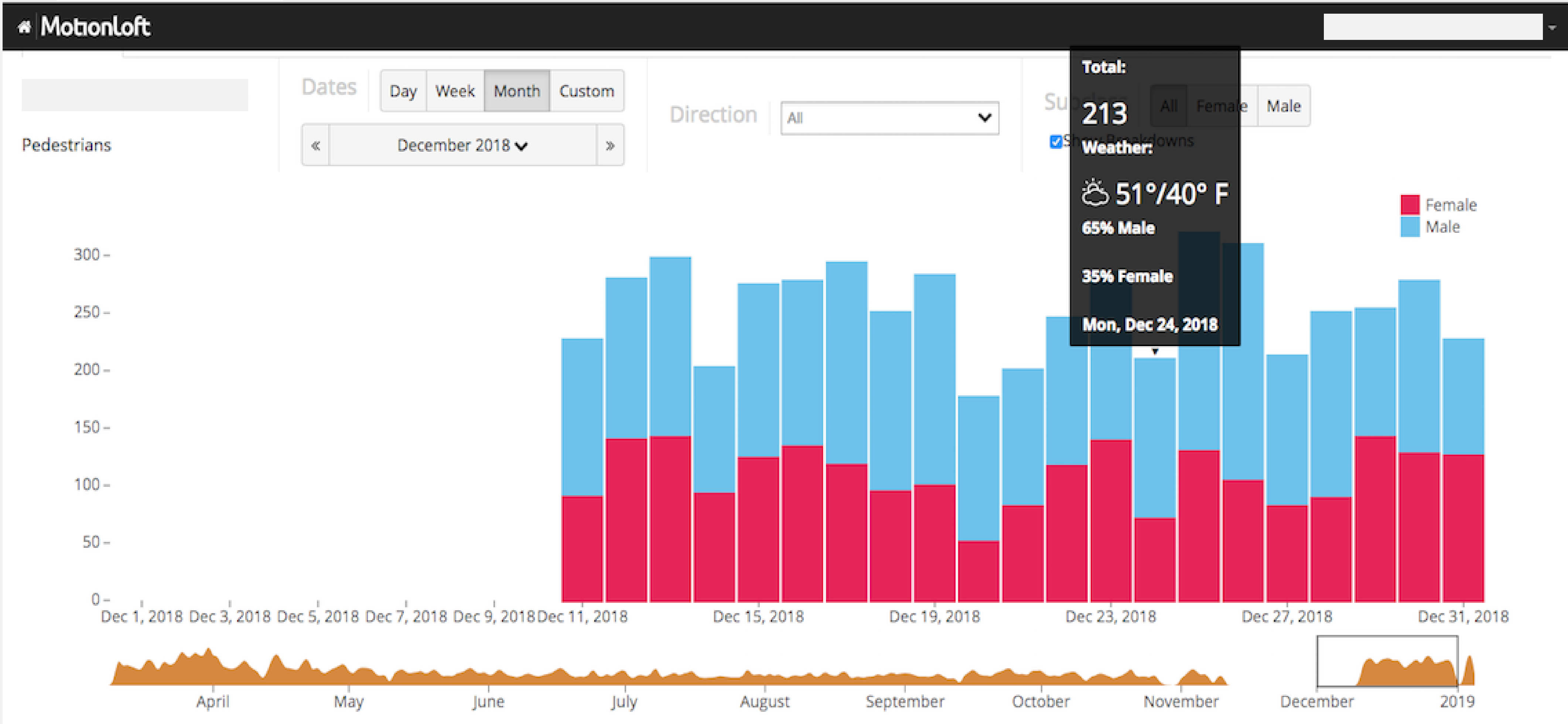
User Interface and Data Visualization

all-in-one dashboard

Bring data to life and get customizable reporting with Motionloft's online dashboard. Easy-to-understand graphs and charts provide instant, actionable insights.



User Interface and Data Visualization with Gender

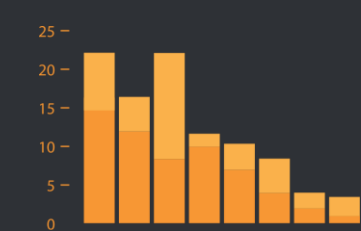


User Interface and Data Visualization

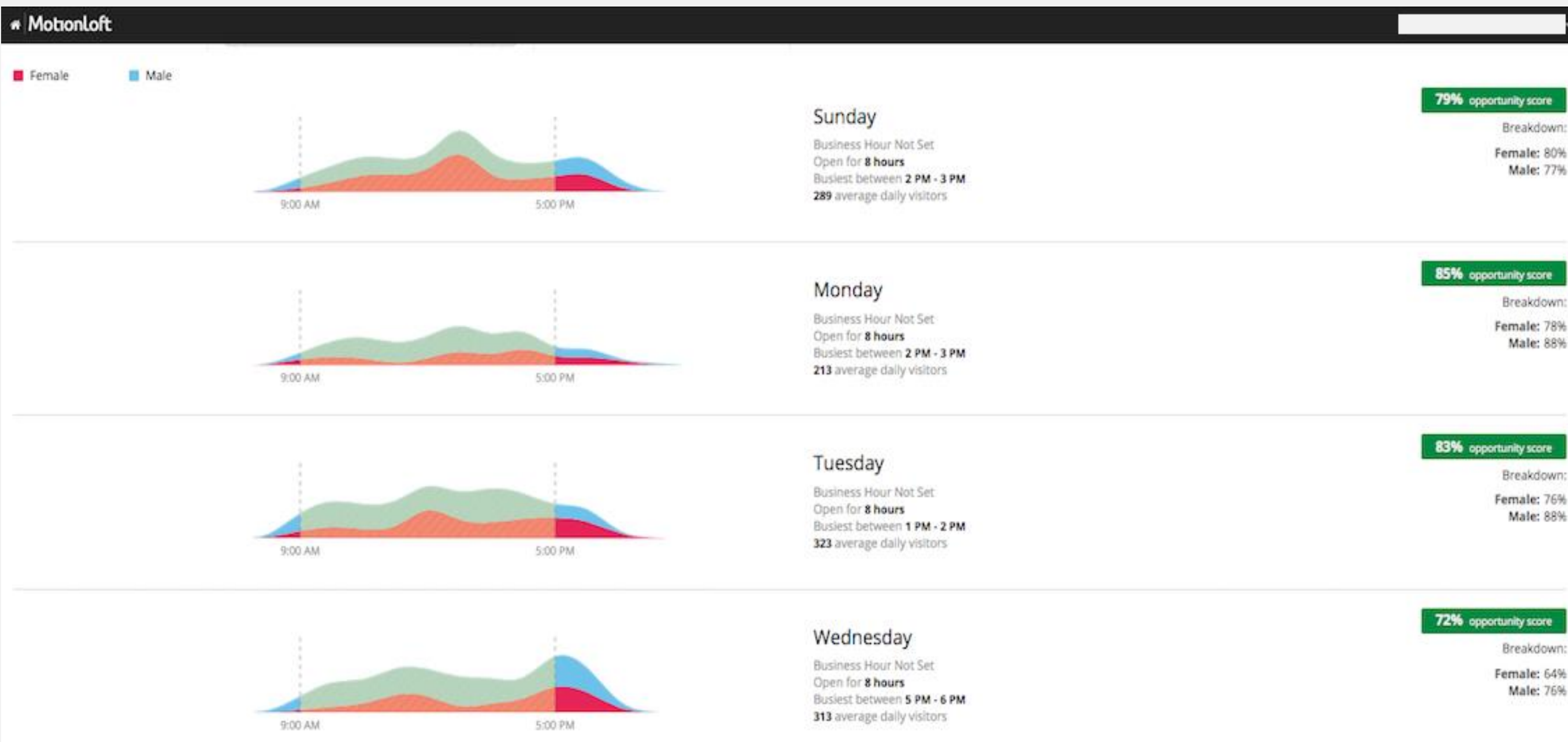
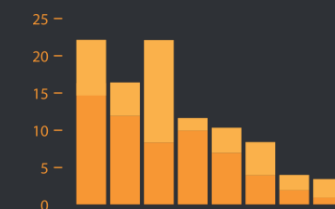
Time Density

All towards Market towards Union Square

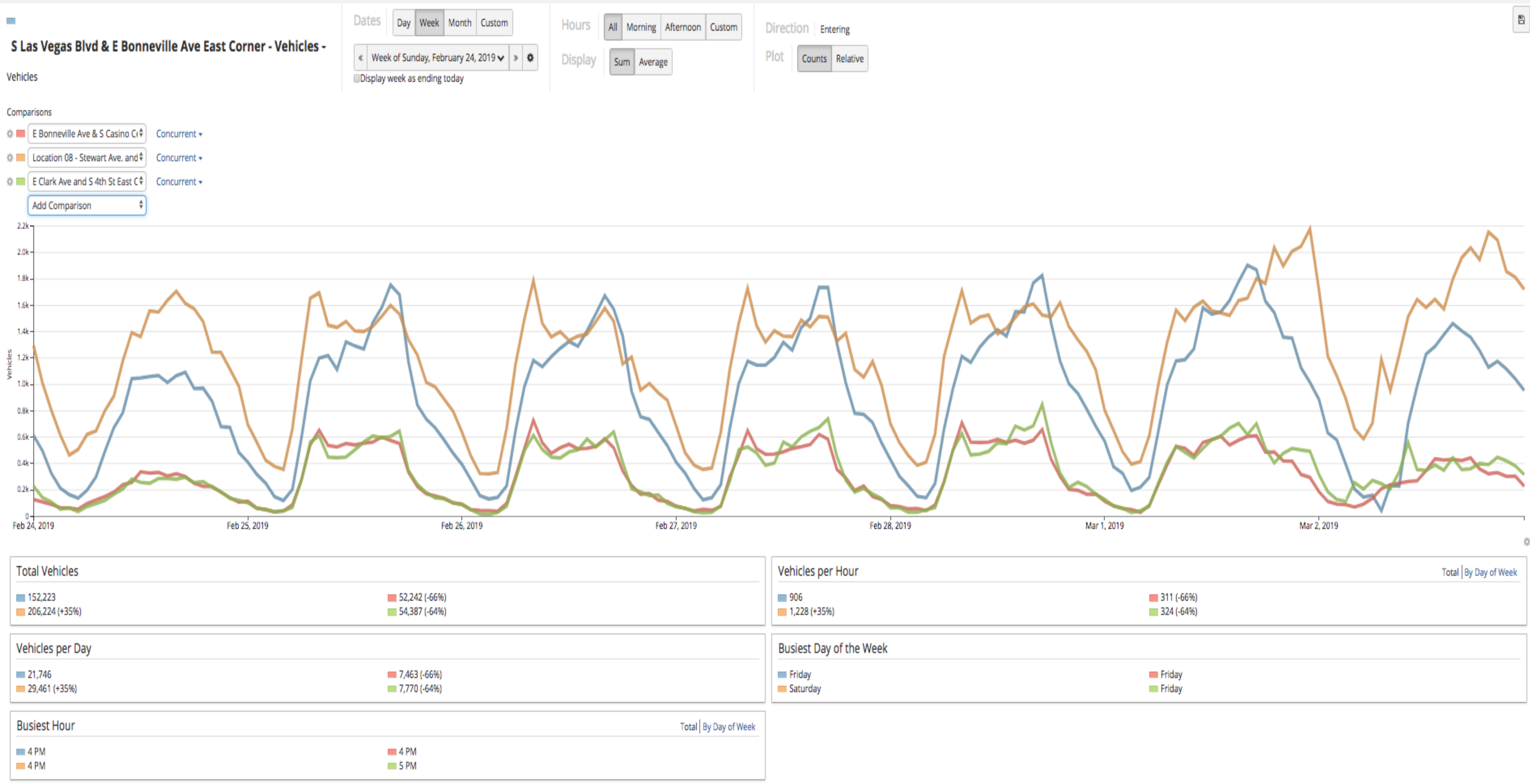
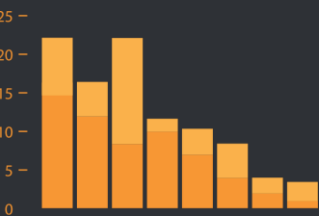
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
12:00 AM - 1:00 AM	75	77	73	86	90	143	137
1:00 AM - 2:00 AM	28	34	39	46	44	60	77
2:00 AM - 3:00 AM	23	27	24	24	39	36	53
3:00 AM - 4:00 AM	22	20	24	23	22	31	26
4:00 AM - 5:00 AM	27	28	31	36	30	30	28
5:00 AM - 6:00 AM	66	87	75	77	72	35	32
6:00 AM - 7:00 AM	155	169	154	157	152	112	78
7:00 AM - 8:00 AM	348	367	340	334	331	198	140
8:00 AM - 9:00 AM	630	598	609	570	536	400	385
9:00 AM - 10:00 AM	828	739	771	729	808	807	644
10:00 AM - 11:00 AM	954	880	867	872	1,028	1,133	1,099
11:00 AM - 12:00 PM	1,175	1,055	1,097	1,078	1,255	1,488	1,341
12:00 PM - 1:00 PM	1,367	1,273	1,283	1,290	1,426	1,632	1,527
1:00 PM - 2:00 PM	1,219	1,241	1,229	1,254	1,411	1,608	1,426
2:00 PM - 3:00 PM	1,249	1,332	1,326	1,307	1,572	1,784	1,538
3:00 PM - 4:00 PM	1,449	1,516	1,510	1,504	1,782	2,167	1,775
4:00 PM - 5:00 PM	1,734	1,808	1,729	1,785	2,200	2,450	2,023
5:00 PM - 6:00 PM	1,681	1,727	1,842	1,786	2,044	2,069	1,768
6:00 PM - 7:00 PM	1,482	1,599	1,567	1,638	1,819	1,882	1,490
7:00 PM - 8:00 PM	1,270	1,337	1,308	1,351	1,543	1,637	1,404
8:00 PM - 9:00 PM	995	1,105	1,039	1,104	1,256	1,362	930
9:00 PM - 10:00 PM	690	645	697	748	874	934	491
10:00 PM - 11:00 PM	312	301	332	374	471	498	285
11:00 PM - 12:00 AM	164	169	186	212	353	289	143



Business Hours & Gender Report Used to Determine Revenue Opportunities and Predict Staffing Levels

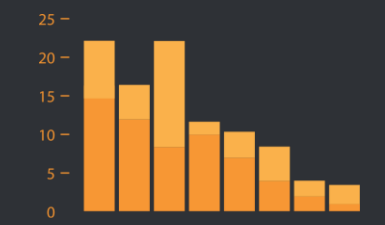
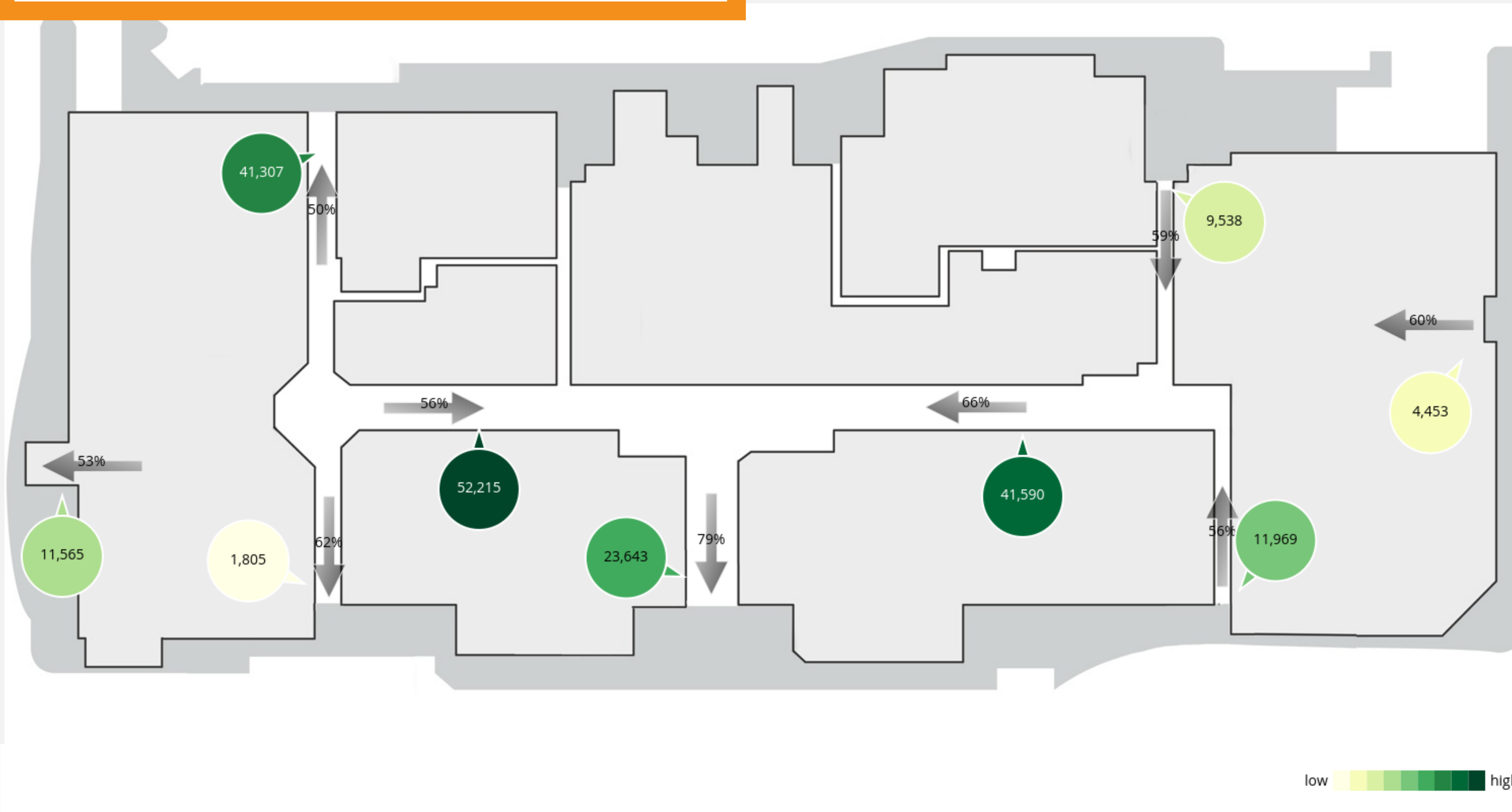


Compare Different Locations in Real Time



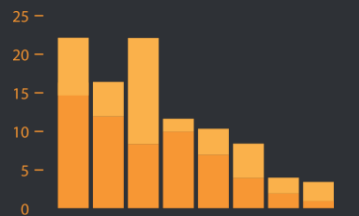
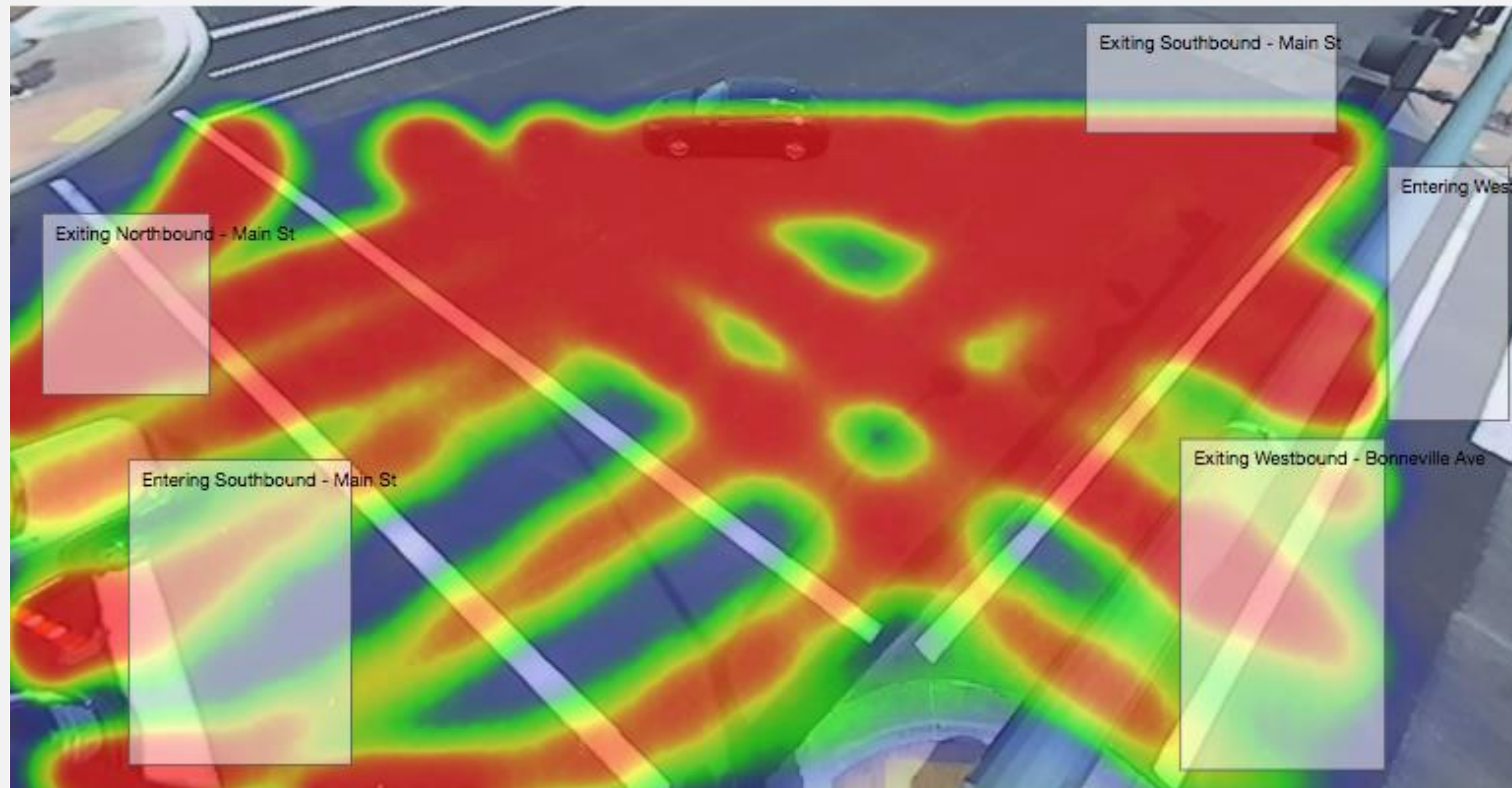
User Interface and Data Visualization

Bubble Map



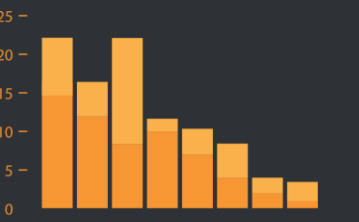
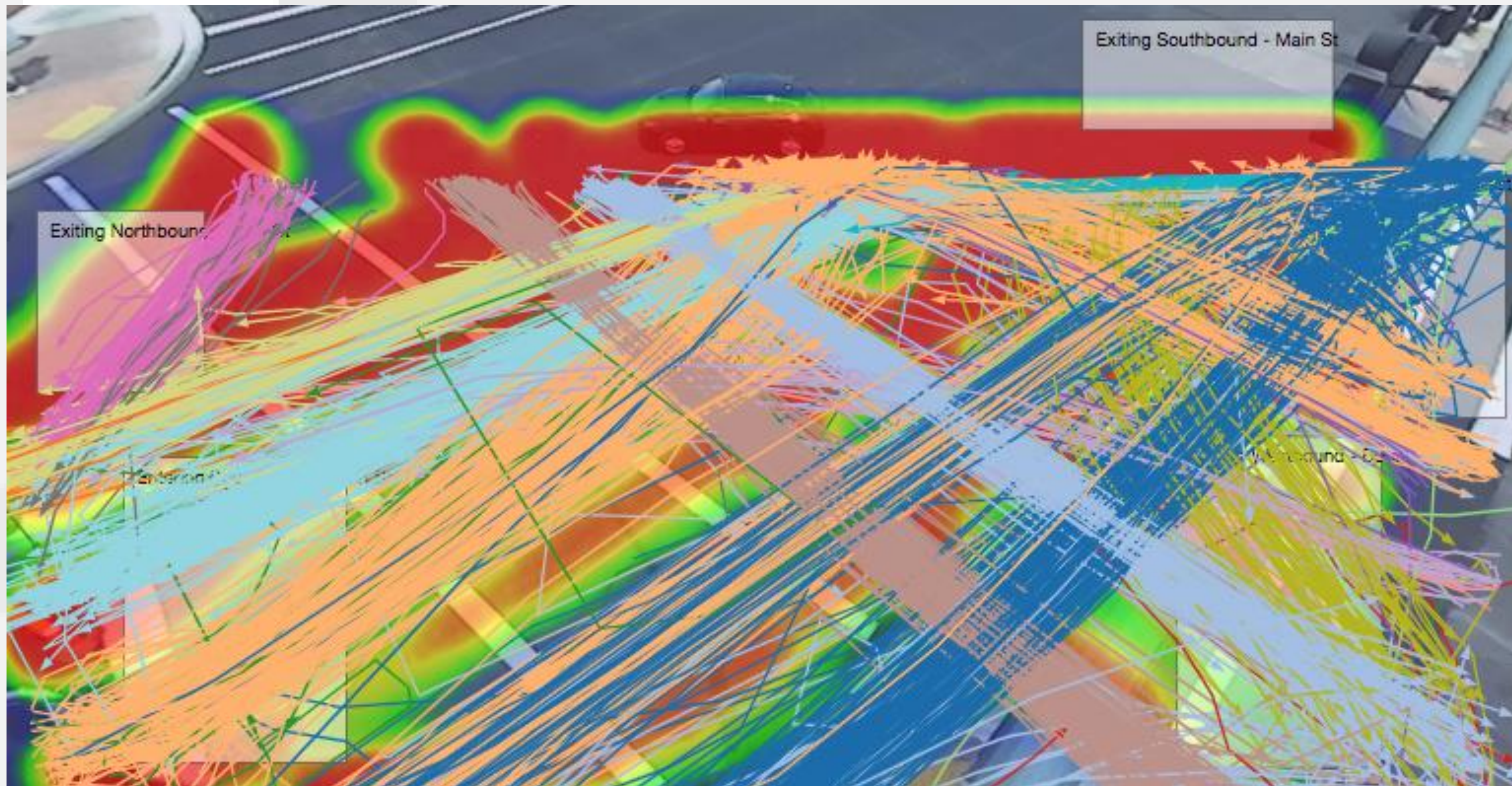
Heat Map

- Identify high traffic and points of lingering within a scene
- Understand utilization to build campaigns



Directionality

- Identify the directionality of traffic and points of entry and exit within a scene



Path Tracking

- Track to quantify behavior trends
- Place best-selling items near popular paths
- Merchandising and Marketing

Path Visitors

1261

Path Popularity

vs. 7 Days Ago

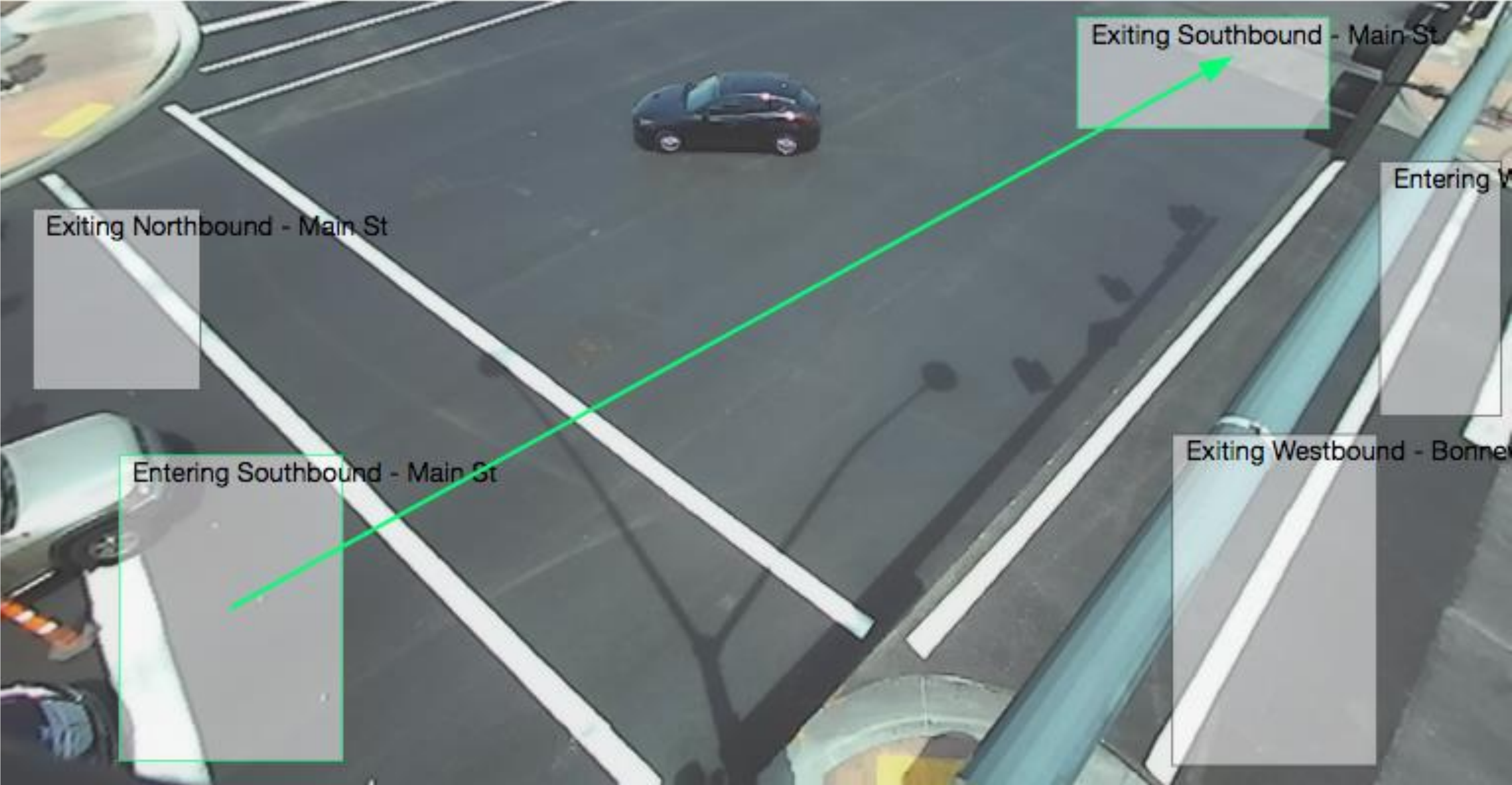
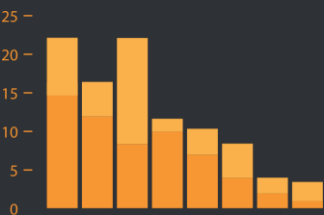
↓ -40.01% 2102

vs. 30 Days Ago

↓ -22.97% 1637

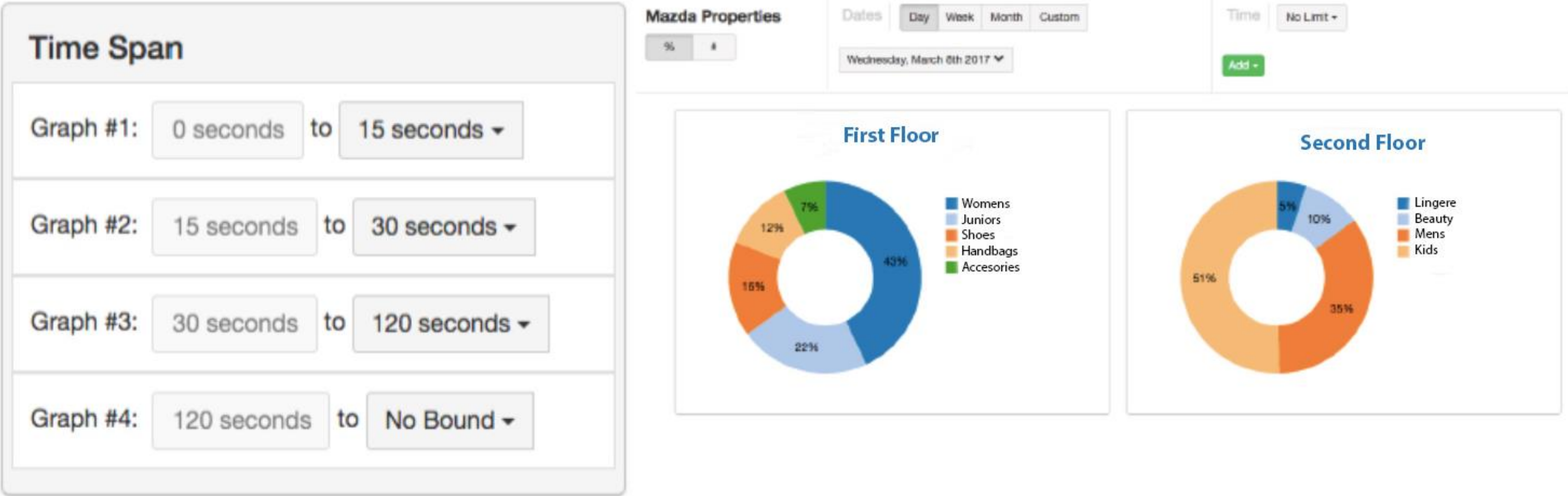
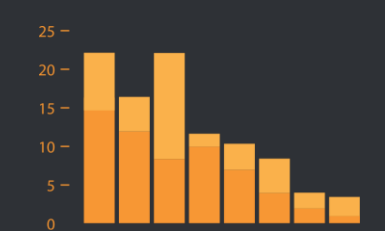
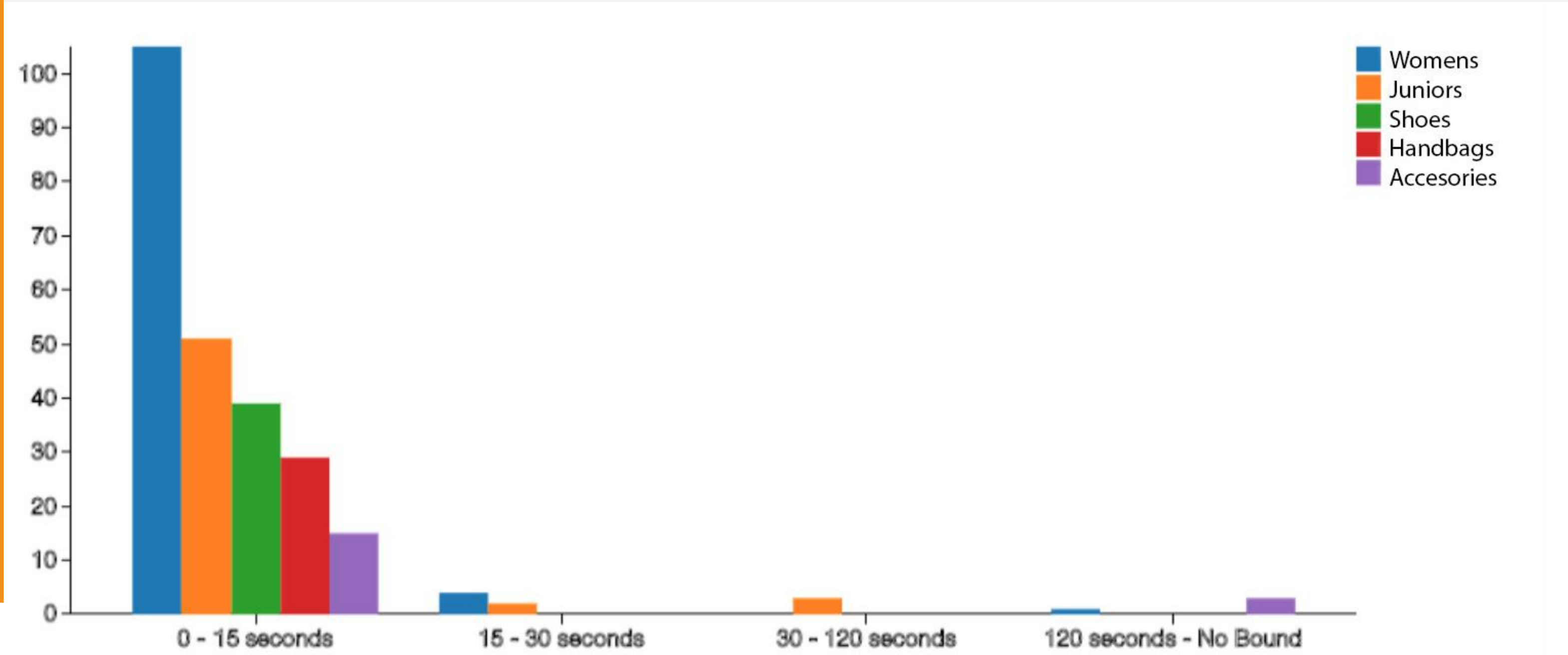
vs. 60 Days Ago

↓ -0.94% 1273



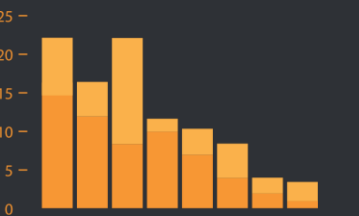
Dwell Time

- Dwell Area vs Spend
- Quantify changes in dwell time before and after merchandising initiatives
- Optimize employee utilization by understanding traffic trends

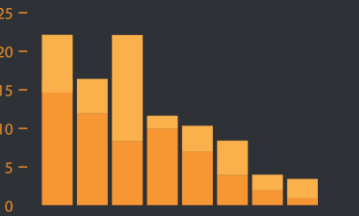


API to display your Data

Use any BI / 3rd Party Dashboard
Agnostic



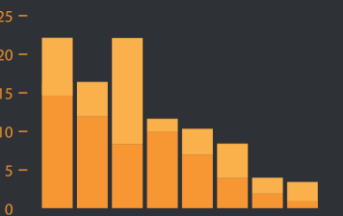
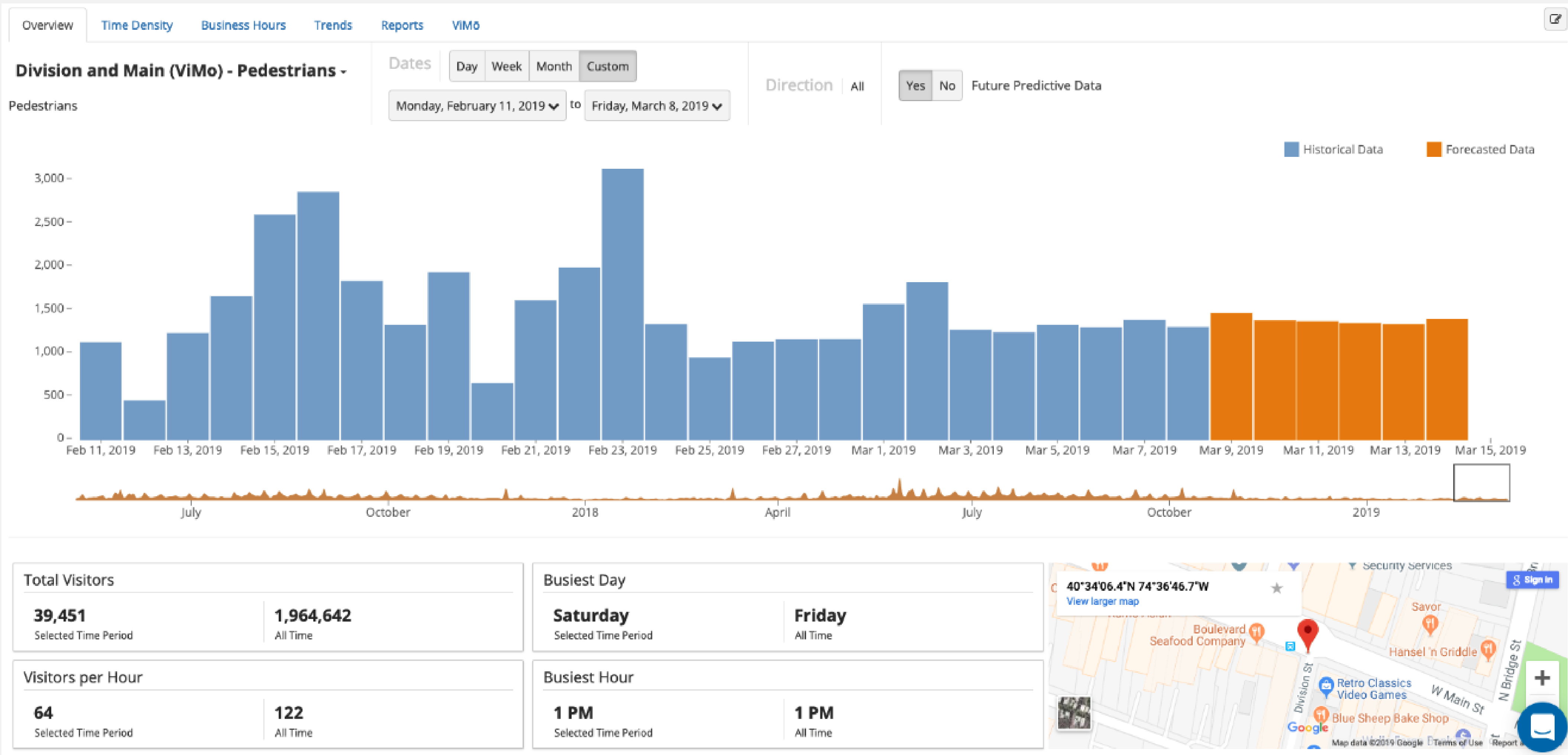
HOT OFF THE PRESS!!!



Vehicle Classification

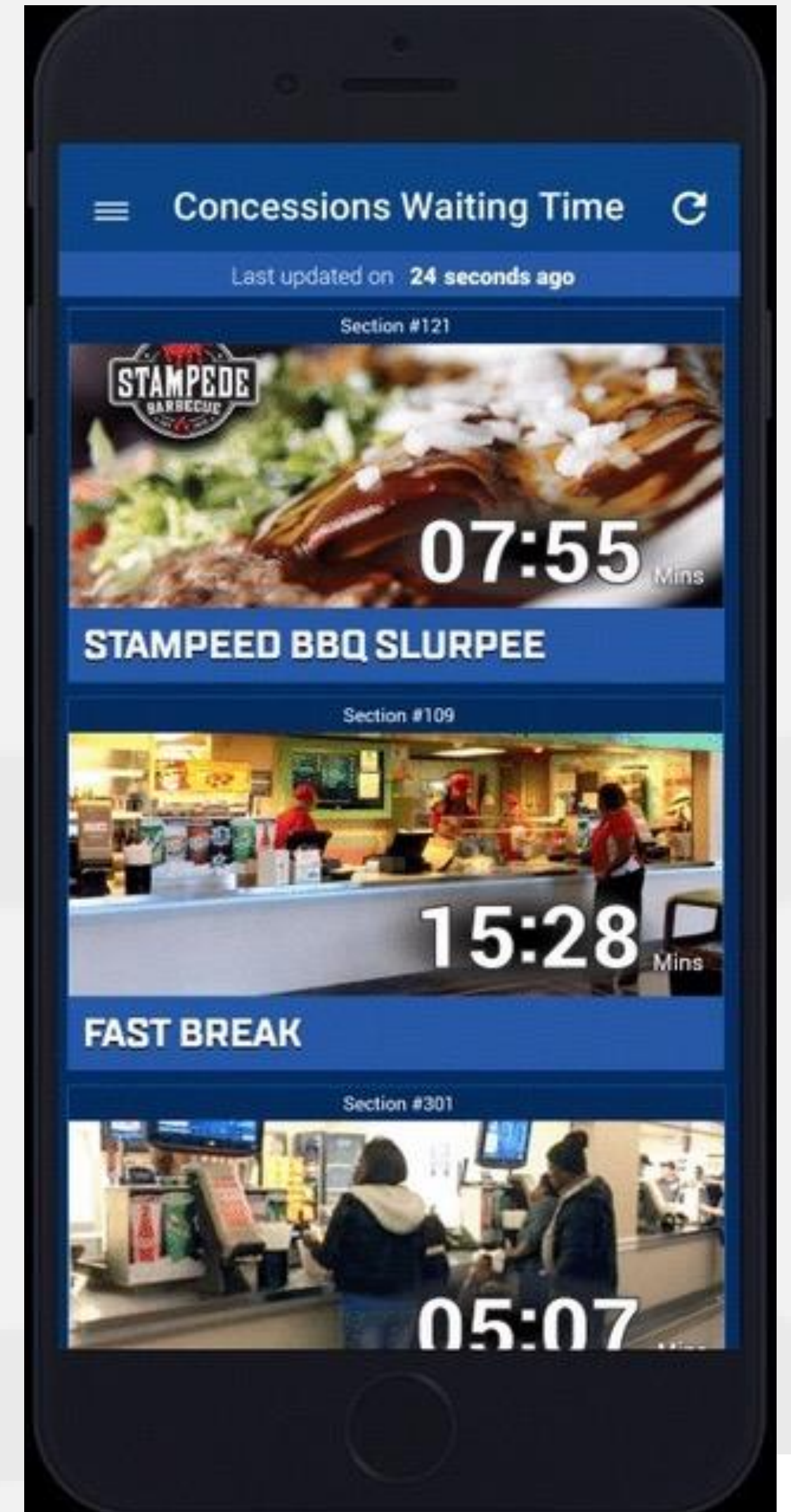


Data Visualization for Predictives



Fan Engagement

We can do more, much more, for the fan application...



innovation that works



your data

Leverage existing data such as security camera feeds, loyalty programs, or inventory management with greater purpose.



our platform

Combine your data with our suite of features to better understand behavior, traffic flow, and purchasing trends.



actionable insights

Put integrated data into action to help drive sales AND engagement.



Thank You

Eric Bueman, VP of Sales

eric.bueman@Motionloft.com

COME VISIT US IN THE BOULDER AI BOOTH!



/motionloft



/motionloft



company/motionloft

www.motionloft.com