

# Status Quo

# Everything Sucks

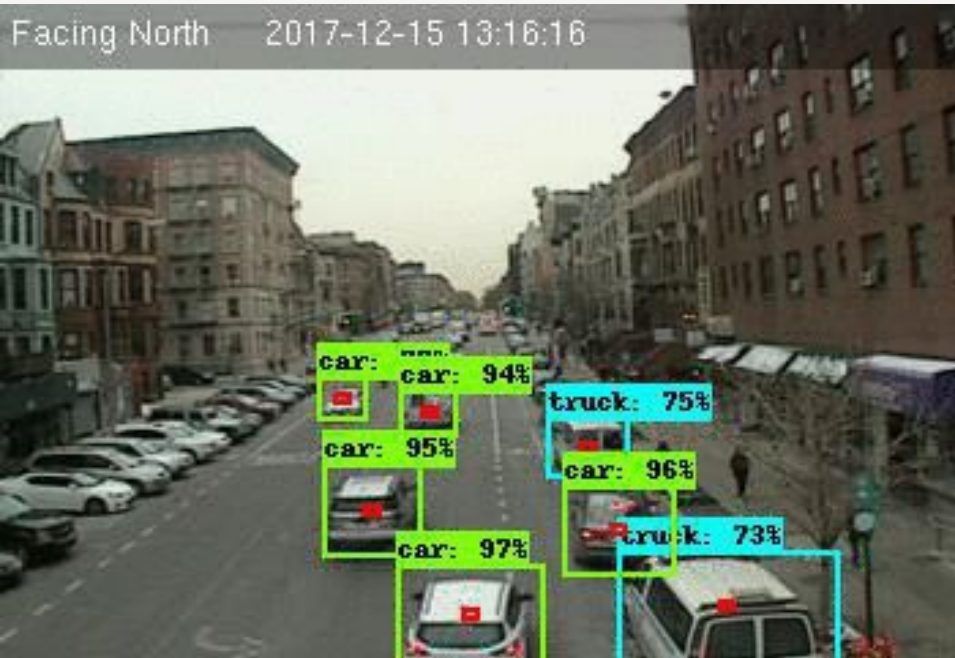
August 2018

# Chapters

- 1 How bad is bad?**
- 2 It's bad out there**
- 3 Getting NYTimes**
- 4 Whats Next**

# How bad is it out there?

Facing North 2017-12-15 13:16:16



Facing North 2017-12-15 13:16:16



**1** I bike everywhere

**2** Bike lanes are always blocked

**3** How can I help?

**By Suing UPS???**

# Alex Bell vs UPS Corp. – Small Claims Court

HARLEM Transportation

## Harlem Bicyclist Sues UPS for Repeatedly Blocking Bike Lanes



By [James Fanelli](#) | October 2, 2015 7:32am | *Updated on October 4, 2015 8:24pm*

[@fanellijames](#)



HARLEM — A fed-up bicyclist wants to deliver a message to Big Brown — stay out of his lane.

Alex Bell, 28, is suing the [United Parcel Service](#), claiming its trucks routinely disrupt his commute by double-parking in bike lanes.

Bell, a software engineer, filed two lawsuits in Manhattan Civil Court



Bicyclist Alex Bell is suing UPS for parking in bike lanes while ...

[View Full Caption](#)

[DNAinfo.com/James Fanelli](#)

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**1 UPS – 0 Alex Bell**

# Alex Bell vs UPS Corp. – State Supreme Court

☰ ☰ ☰




gothamist





**ADD WÖRDS**  
Getting more leads doesn't have to be complicated

## Harlem Man Sues UPS For Always Parking In The Damn Bike Lane

BY [LAUREN EVANS](#) IN [NEWS](#) ON [OCT. 2, 2015, 3:45 PM](#)


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 They Dove Into Du...  



8



**2 UPS – 0 Alex Bell**

**“Can you prove UPS is an extraordinary blocker of bike lanes” – Judge**

# NYC DOT has open cameras

The screenshot displays the NYC DOT website interface. At the top, the NYC logo and 'New York City Department of Transportation' are visible. A navigation bar includes links for Residents, Business, Visitors, Government, and Office of the Mayor. Below the header, there are utility links like 'Printer Friendly', 'E-mail This Page', and 'Translate This Page'. A left sidebar contains a 'Home' menu with options such as 'About DOT', 'Pedestrians', 'Bicyclists', 'Ferries & Buses', 'Motorists & Parking', 'Infrastructure', and 'Contact DOT'. The main content area features a 'Real Time' section with a 'Main Map' and a 'Cameras List' link. A map of the area around Lenox Ave is shown, with a camera icon at the intersection. A large window displays a live video feed from the camera, showing a street scene at night with traffic and buildings. The video feed includes a timestamp '2018-10-15 21:54:47' and the text 'NYC DOT NYCWIN'. The map below the video shows the surrounding area, including Riverside Park, Columbia University, and the Museum in Harlem.

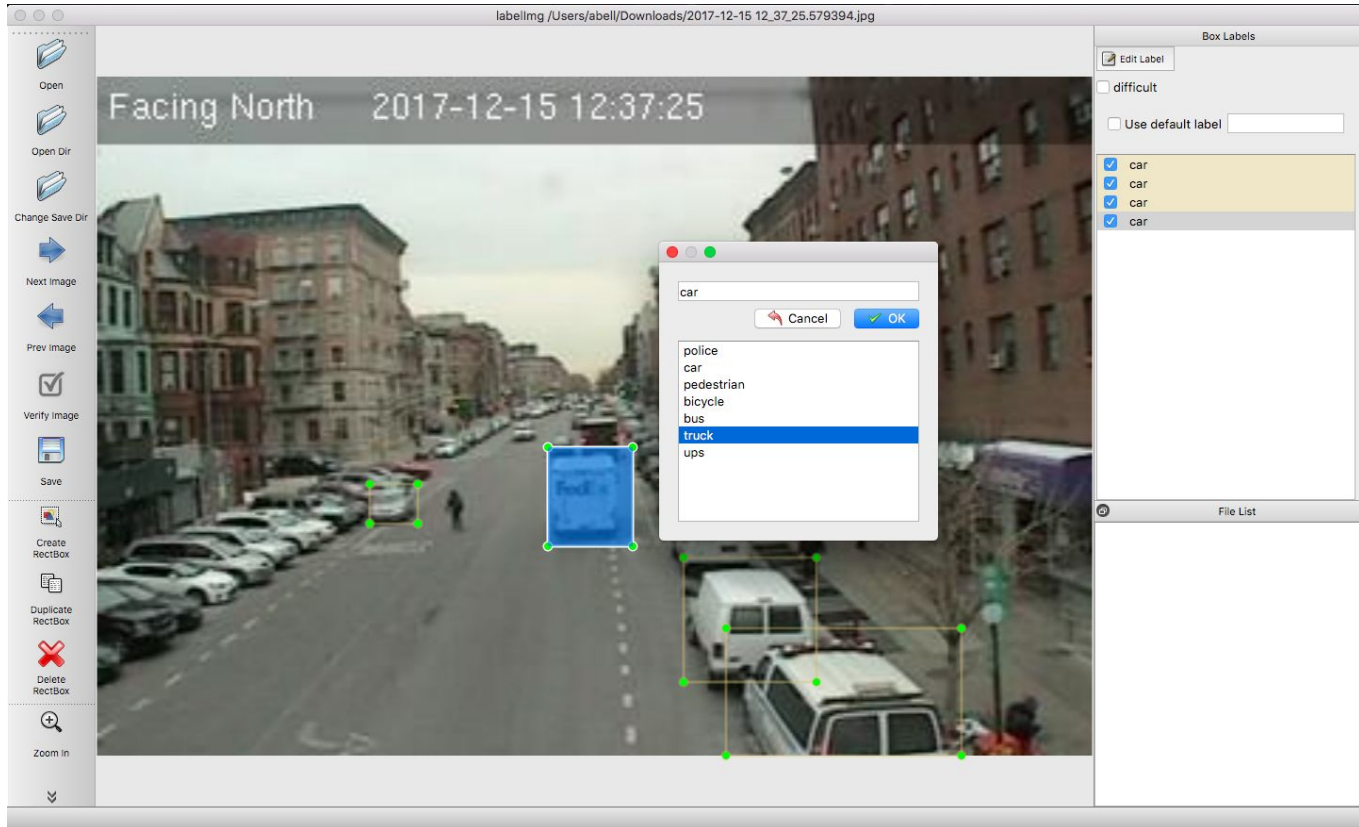
**I have a computer**

# Download a weeks worth of images from Harlem camera

- 800,000 images



# Annotate 2000 images, by hand



# Retrain Resnet\_50\_Coco models last layer on trained data



# Blocked Lane?





```

center_x = (((xmax * 352) - (xmin * 352)) / 2) + (xmin * 352)
center_y = (((ymax * 240) - (ymin * 240)) / 2) + (ymin * 240)
classes = np.squeeze(classes).astype(np.int32)
if classes[i] in category_index.keys():
    class_name = category_index[classes[i]]['name']
else:
    class_name = 'N/A'

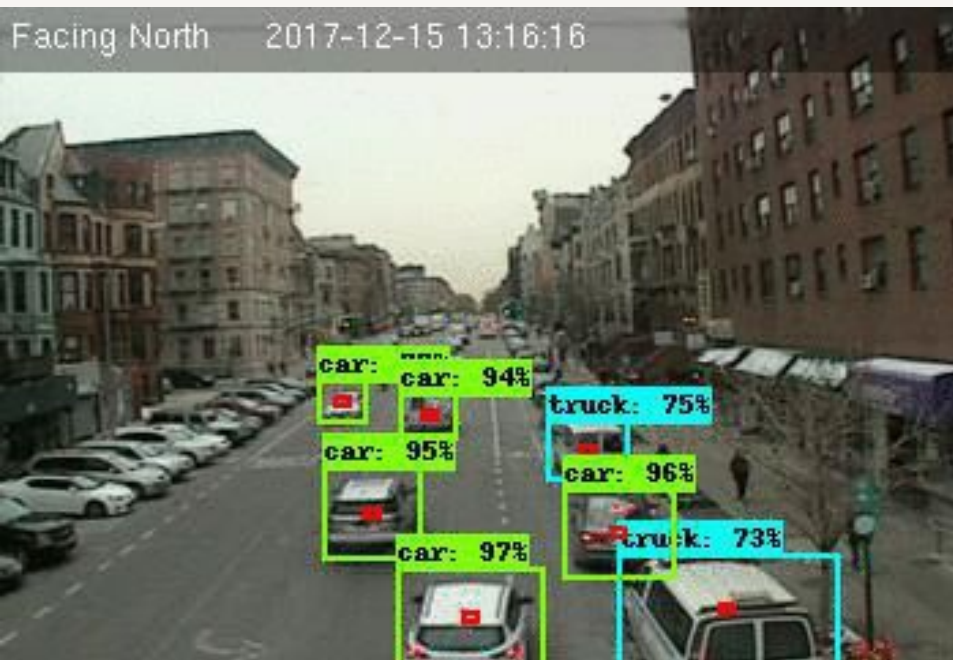
if class_name == 'car':
    points = [(center_x, center_y)]
    if pathrightlane.contains_points(points) or pathleftlane.contains_points(points):
        num_cars_in_bikelane += 1
    elif pathbuslane.contains_points(points):
        num_cars_in_bus_stop += 1

elif class_name == 'truck' or class_name == 'police' or class_name == 'ups':
    points = [(center_x, center_y)]
    if pathrightlane.contains_points(points) or pathleftlane.contains_points(points):
        num_trucks_in_bike_lane += 1
    elif pathbuslane.contains_points(points):
        num_trucks_in_bus_stop += 1

```

# It's bad out there

Facing North 2017-12-15 13:16:16



Facing North 2017-12-15 13:16:16



# During a 10 day period on one Harlem street

**55%**

Bus Stop Blocked

**40%**

Bike Lane Blocked

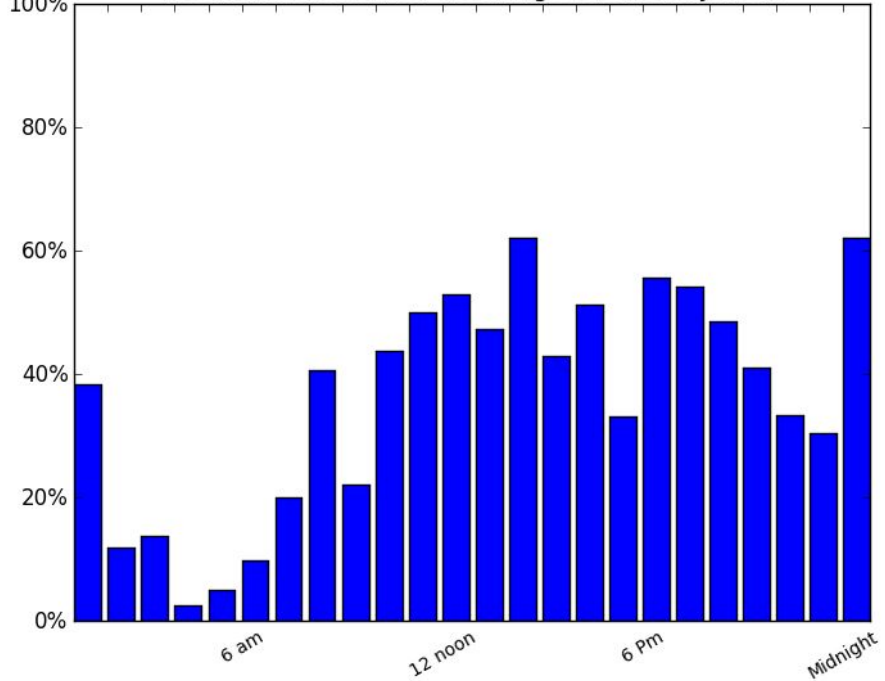
**55%**

Bus Stop Blocked  
7am-7pm

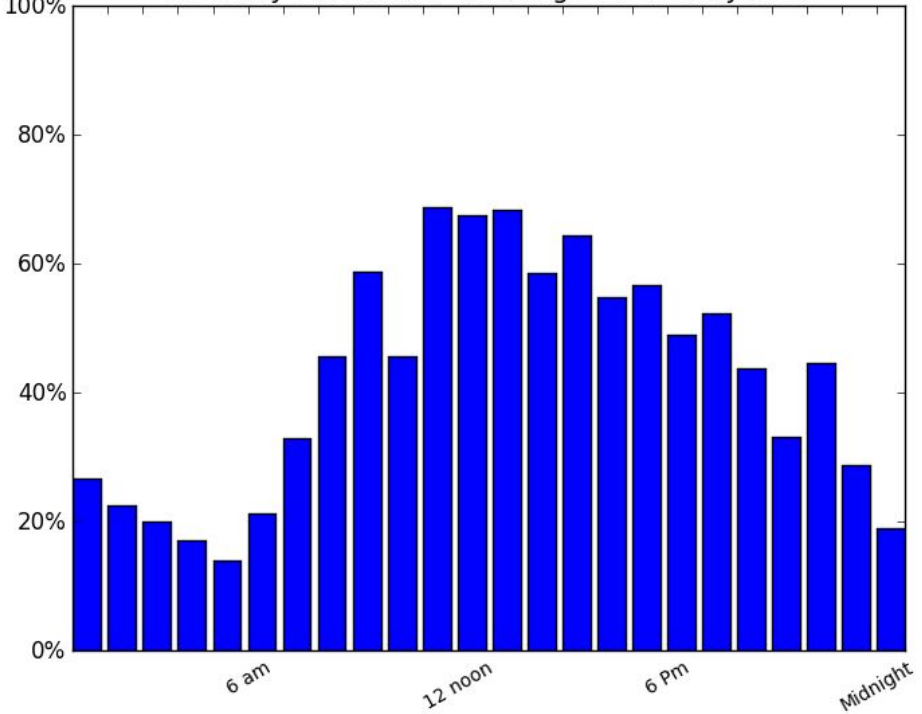
**57%**

Bike Lane Blocked  
7am-7pm

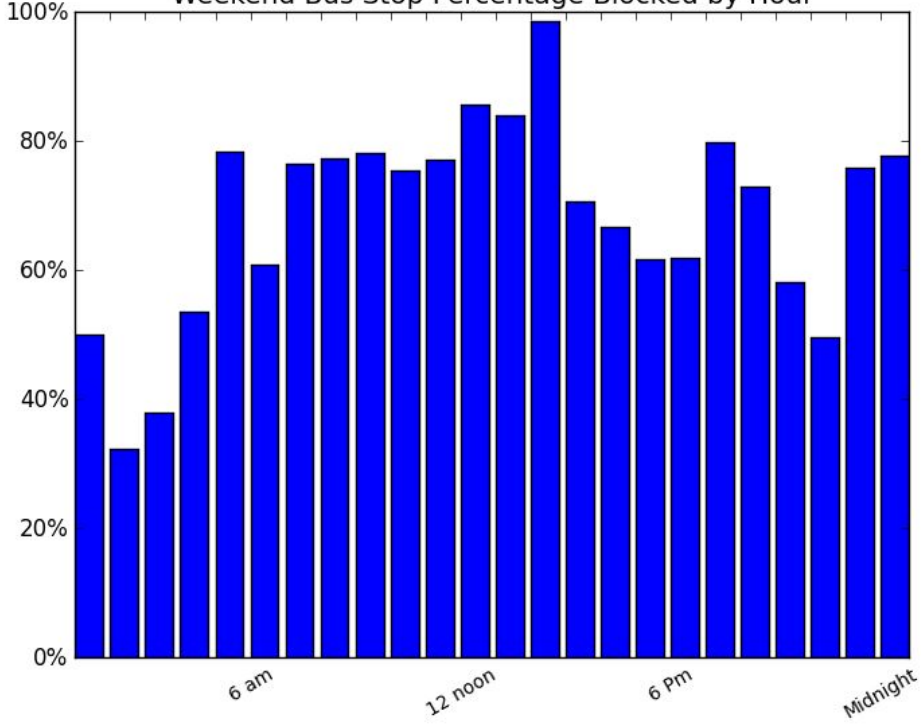
Weekend Bike Lane Percentage Blocked by Hour



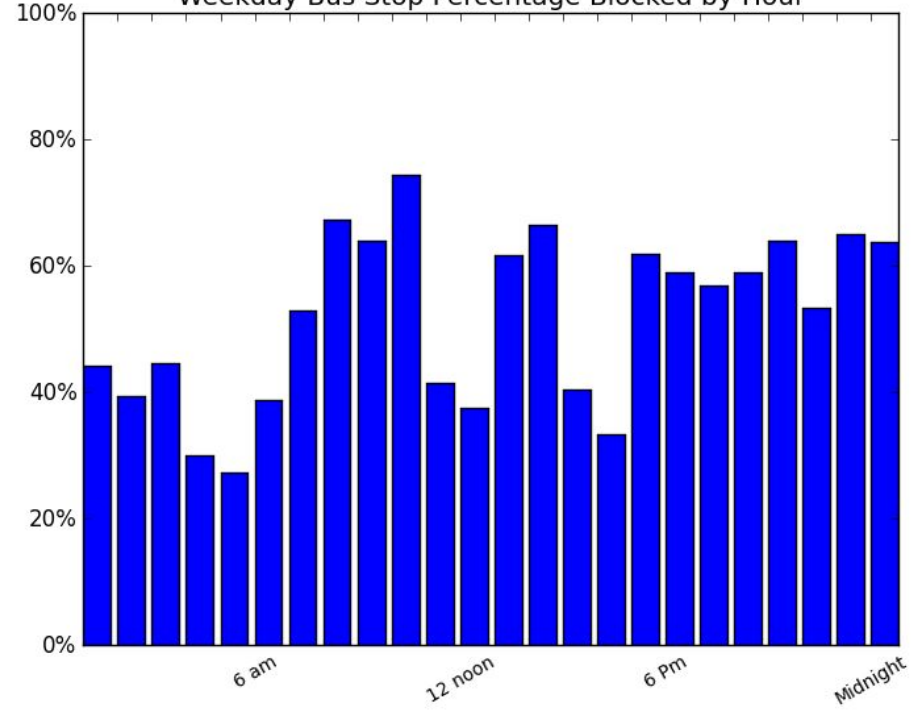
Weekday Bike Lane Percentage Blocked by Hour



Weekend Bus Stop Percentage Blocked by Hour



Weekday Bus Stop Percentage Blocked by Hour



# Getting a Nytimes Article

# Email LOTS of reporters and get lucky

NYTimes Bus Stops and Blke Lanes Blocked > 50% of the time ▶



**Alex Bell** <alex.morgan.bell@gmail.com>

to brian.rosenthal ▾

Tue, Feb 20, 7:41 PM



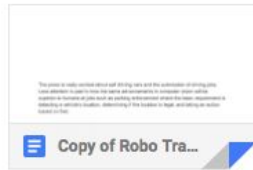
Hello Brian,

I have been doing a deeper investigation using Machine Learning and DOT traffic cameras to quantify Bike Lane and Bus Stop blockage. I just wrote up the project here

<https://docs.google.com/document/d/183yKM0cOvHEHmJiijmYDTYI0ao-4sb-8pwkWfxDH-Y/edit?usp=sharing>

But it is not public yet. Seeing how much great writing the NYTimes is doing on Subways/Busses I thought I would reach out to you and see if you were interested in writing a story on the project and its results.

\*\*\*



**Rosenthal, Brian** <brian.rosenthal@nytimes.com>

to me ▾

Wed, Feb 21, 9:44 AM



Forwarding this to Sarah Nir, our transit beat reporter. Thank you!

## *Bus Lane Blocked, He Trained His Computer to Catch Scofflaws*



Alex Bell developed a computer program that used a traffic camera to identify how often bus and bicycle lanes were blocked by unauthorized vehicles along one block in Harlem.

Christopher Lee for The New York Times



**What's Next? Cynically  
Nothing you assume?**

**DOITT + Intersection + Alex  
=  
Every Camera In The City**

**Demo**

# Anders from NYC DOITT

Traffic cameras are an untapped resource for city intelligence

- Traffic counts
- Car crash detection
- Traffic anomaly detection
- Pedestrian count
- Traffic jam prediction,
- Air quality predictions
- Floodings
- Snow clearance



**Crazy Ideas**

- 1. MTA crowdsource app to take pictures of bus blockers for tickets and pay \$ bounty per ticket.**
- 2. Cover the Subway doors in Honey**
- 3. Drive the trains faster + take out insurance policy for crashes**
- 4.**

# Thank You

Alex Bell

Alex.Morgan.Bell@gmail.com

<https://github.com/Bellspringsteen/OurCamera>

<https://github.com/Intersection/OurCamera>

@Bellspringsteen