#### Jason Anastasopoulos

Assistant Professor

Public Administration and Policy

Political Science

#### Background



**University of Georgia** 

**Assistant Professor** 

Public Administration and Policy

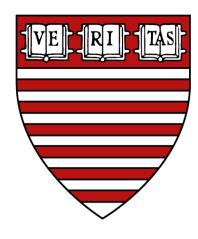
**Political Science** 



**UC Berkeley** 

Data Science Fellow, School of Information, 2015-2016

PhD Political Science, 2013



**Harvard Kennedy School** 

Democracy Fellow, 2013-2015

#### Research Interests

Applied image analysis – computer vision/deep learning

• Applied text analysis – topic models, supervised machine learning.

• Experiments and causal inference.

### Image as Data: A Computer Vision Framework for the Analysis of Political Images

Development of a framework for political image analysis.

• Exploration of House of Representatives photographic "homestyles" – how they convey information to their constituents.

### Image as Data: A Computer Vision Framework for the Analysis of Political Images

- Image features
   which
   communicate
   partisanship/ideol
   ogy.
- Image features
   which
   communicate
   qualification,
   identification and
   empathy.



Facebook Photos - Rep. George Holding (R-NC)



Facebook Photos – Rep. Steve Cohen (D-TN)

#### Data

300,000+
Facebook
images with
text posts for
accounts of
356 members
of the House
and Senate.

























Alone Man Woman Af. American







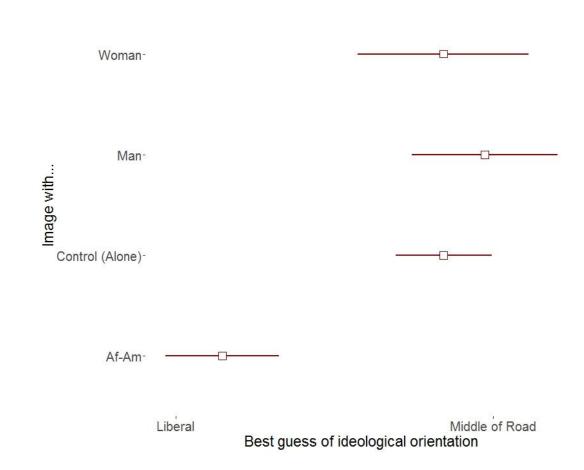




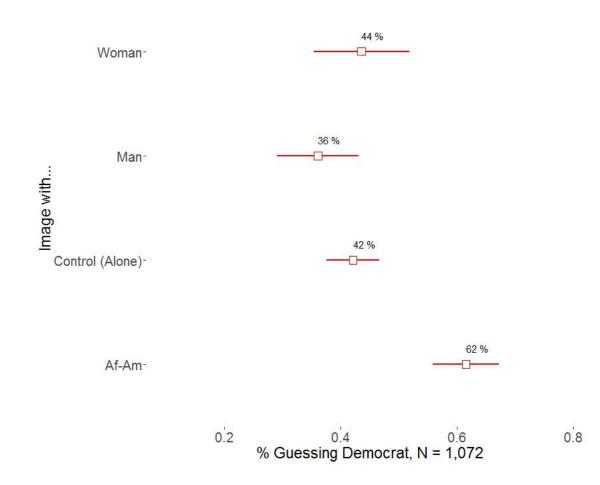




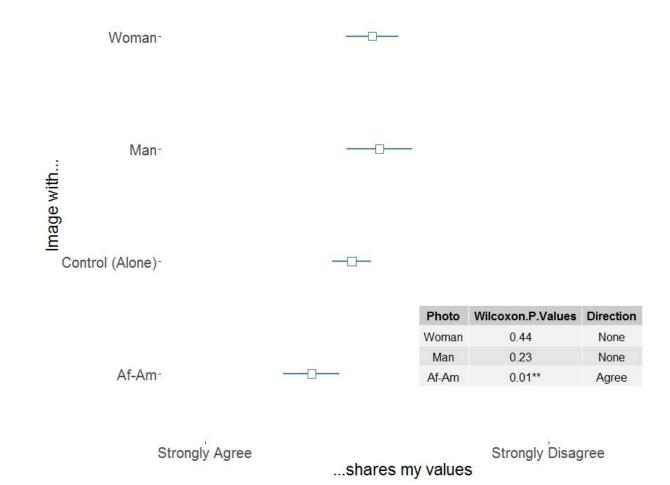
Affects guess about ideology.



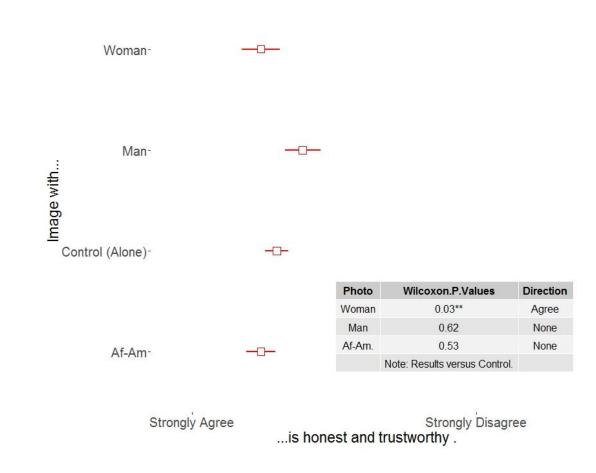
Affects guess about party.



Affects
whether
respondents
believe that
politicians
share their
values.



Affects perceptions about honesty and trust.

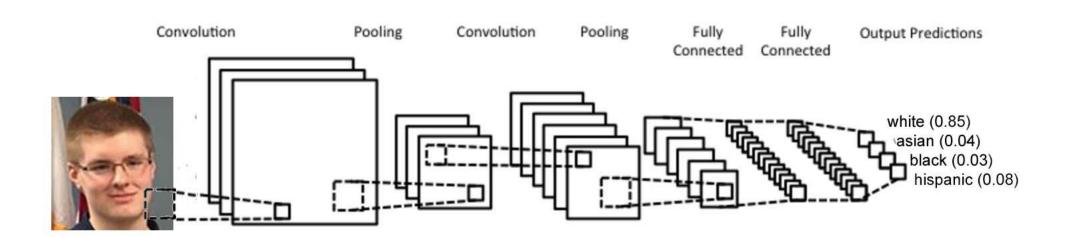


## Do politicians use the people that they pose with in photos differently?

• Specifically, do Democrats and Republicans use race in photos differently?

# Build convolutional neural network classifier to identify race in Congressional images

• Avg. cross-validated accuracy rates of **90**% for whites, **85**% for African-American, **75**% for Asian, **65**% for Hispanic.



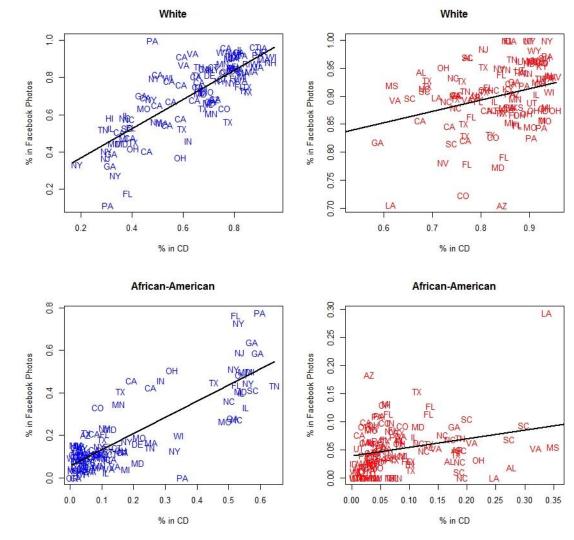
## Explore strategic use of race in photographs posted by Democrats and Republicans

House members:

Congressional District Demographics

Vs

Facebook profile "demographics"



# Explore strategic use of race in photographs posted by Democrats and Republicans

Senate

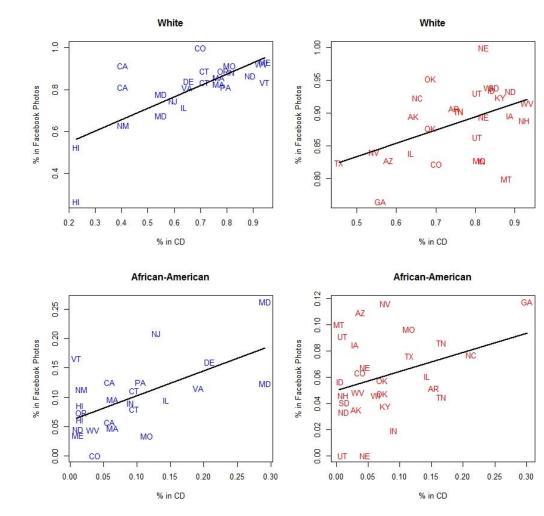
members:

State

**Demographics** 

Vs

Facebook profile "demographics"



#### Text Analysis Projects

• Understanding political events through scalable, multi-mode, social action identification. (supervised machine learning, naïve Bayes)

 Putting your money where your statements are: using topic models to explore how changes in stated priorities reflect actual budgetary changes.

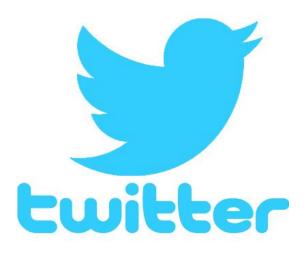
#### Understanding political events through scalable, multi-mode, social action identification.

 Construct a framework for identifying four types of social/politi cal action.

	PEACEFUL	FORCEFUL
SINGULAR	Individual actions/expressions of actions indicating peaceful intent. (e.g., expressions of empathy or support)	Individual actions/expressions of actions indicating peaceful or forceful intent. (e.g., violence between individuals)
COLLECTIVE	Collective actions/expressions of actions indicating peaceful intent. (e.g. peaceful activity among and between groups)	Collective actions/expressions of actions indicating peaceful or forceful intent. (e.g., violence among and between groups)

Understanding political events through scalable, multi-mode, social action identification.

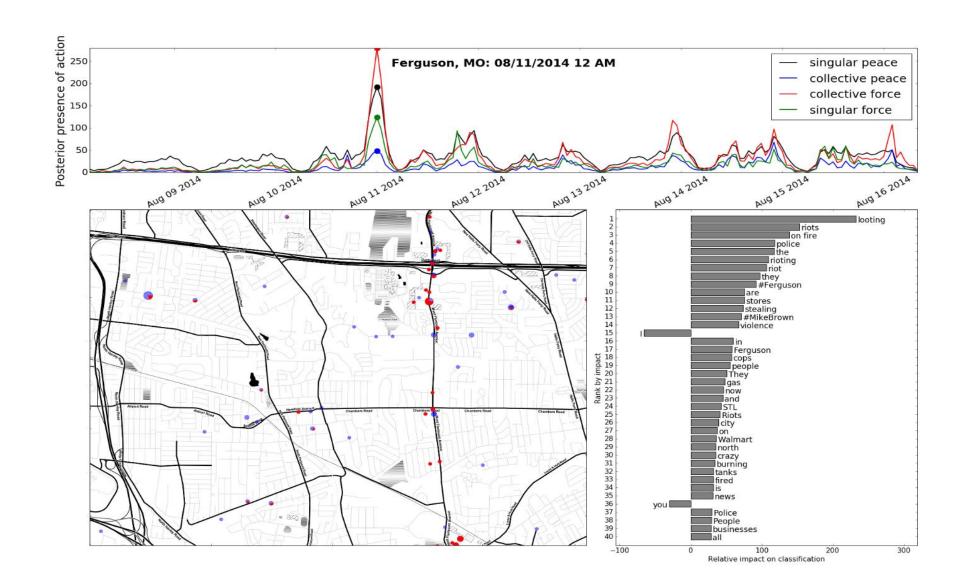
 Using 600 million + geocoded Tweets collected between April 1<sup>st</sup>, 2014 and April 30<sup>th</sup>, 2015.



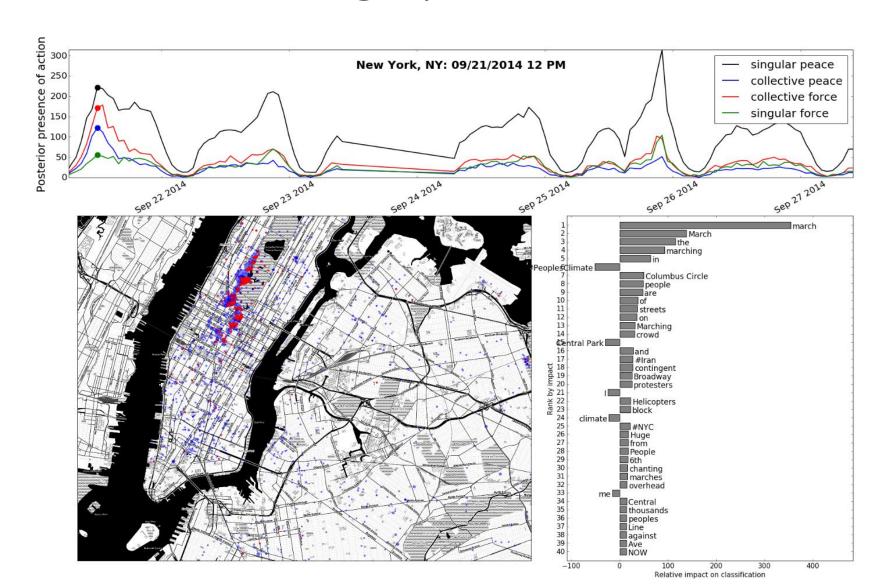
• Use Associated Press image metadata to "filter" protest related Tweets.

• Train "adept" Bayes classifier to identify different types of social/political actions.

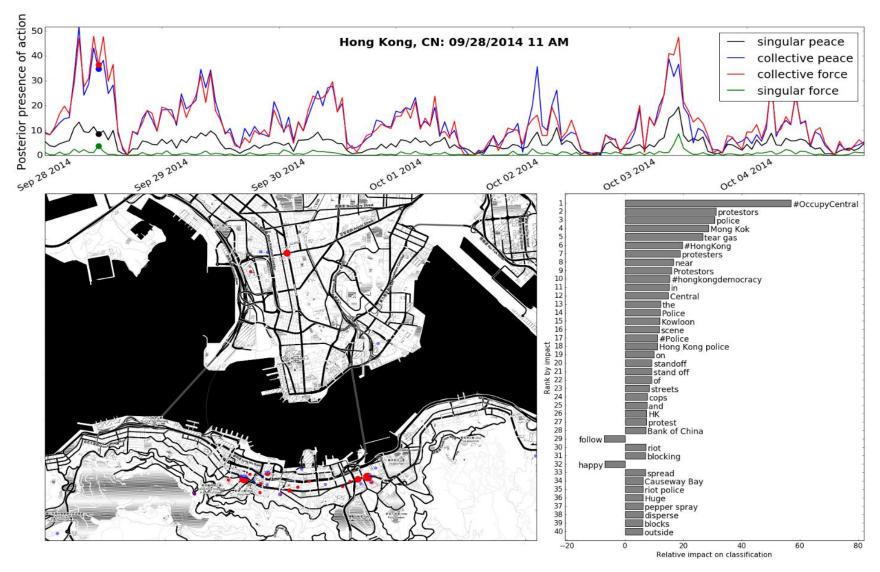
#### Ferguson protests, 08/11/2014



#### NYC climate change protests 05/21/2014



#### Hong Kong "occupy" protests 09/28/2014



#### NYC climate change protests...

