

RECOMMENDING LOCAL POLITICIANS



Samir Thanedar

PRESIDENT BARACK OBAMA ON LOCAL VOTING



*“...the elected officials who matter most in reforming police departments and the criminal justice system **work at the state and local levels**”*

*“Unfortunately, **voter turnout in these local races is usually pitifully low**, especially among young people – which makes no sense given the direct impact these offices have on social justice issues, not to mention the fact that **who wins and who loses those seats is often determined by just a few thousand, or even a few hundred, votes.**”*

DATASET



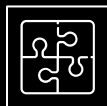
BAY AREA

108 politicians
running for
Congress, State
Assembly or
State Senate



TWITTER PRESENCE

61% of the
politicians had a
“scrapable” profile



TWEETS

All tweets from
03/03/19 to
03/03/20



% OF “GOOD” PROFILES

83% of Democrats
30% of Republicans

WORKFLOW

DATA COLLECTION

GetOldTweets API
to scrape 66 twitter
profiles

VECTORIZATION

Doc-Term Matrix

SENTIMENT

VaderSentiment
for the top 200
words

RECOMMENDATION

Cosine Similarity
Input: Twitter and county
Output: You should vote for X

INITIAL RESULTS

U.S. CONGRESS DISTRICT 3 RACE



John Garamendi
Democrat
Incumbent



Tamika Hamilton
Republican
War Veteran



Sean Feucht
Republican
Musician

NO SENTIMENT

—

U.S. CONGRESS

DISTRICT 3

JOE BIDEN

Candidate Name	Party	Similarity	Number of Tweets
John Garamendi	Democrat	0.58	927
Tamika Hamilton	Republican	0.52	1157
Sean Feucht	Republican	0.51	531

DONALD TRUMP

Candidate Name	Party	Similarity	Number of Tweets
Tamika Hamilton	Republican	0.57	1157
Sean Feucht	Republican	0.53	531
John Garamendi	Democrat	0.50	927

ALEXANDRIA OCASIO CORTEZ

Candidate Name	Party	Similarity	Number of Tweets
Tamika Hamilton	Republican	0.62	1157
Sean Feucht	Republican	0.57	531
John Garamendi	Democrat	0.57	927

RESULTS WITH SENTIMENT U.S. CONGRESS DISTRICT 3

JOE BIDEN

Candidate Name	Party	Similarity	Number of Tweets
John Garamendi	Democrat	0.46	927
Sean Feucht	Republican	0.37	531
Tamika Hamilton	Republican	0.26	1157

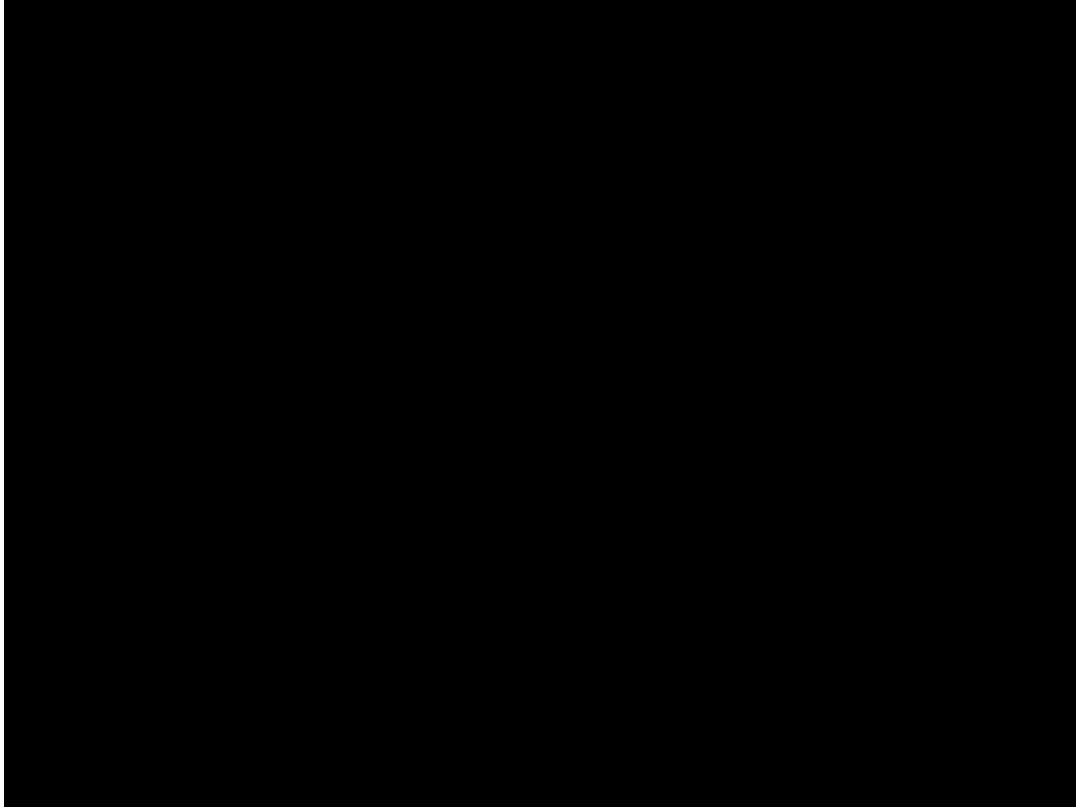
DONALD TRUMP

Candidate Name	Party	Similarity	Number of Tweets
Sean Feucht	Republican	0.49	531
John Garamendi	Democrat	0.47	927
Tamika Hamilton	Republican	0.35	1157

ALEXANDRIA OCASIO CORTEZ

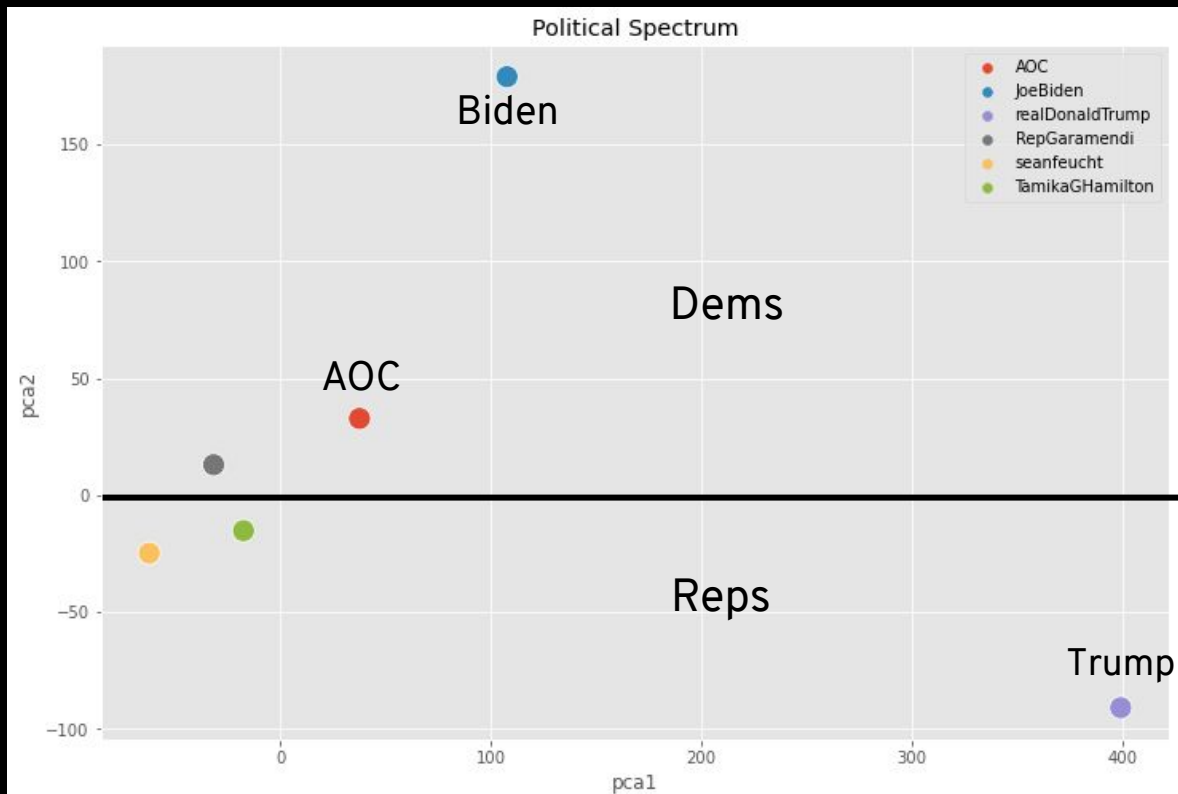
Candidate Name	Party	Similarity	Number of Tweets
John Garamendi	Democrat	0.52	927
Sean Feucht	Republican	0.50	531
Tamika Hamilton	Republican	0.38	1157

VIDEO OF FLASK APP



CONCLUSIONS

**MODEL IS GOOD AT PICKING BETWEEN DEMOCRATS AND
REPUBLICANS FOR MODERATE CANDIDATES**



CONCLUSIONS

SENTIMENT HELPS WITH POLITICIANS ON THE FRINGE BUT HAS TROUBLE DIFFERENTIATING BETWEEN FAR LEFT AND FAR RIGHT

ALEXANDRIA OCASIO CORTEZ

Candidate Name	Party	Similarity	Number of Tweets
Deanna Lorraine	Republican	0.6	3445
Nancy Pelosi	Democrat	0.5	1322
Tom Gallagher	Democrat	0.41	400
John Dennis	Republican	0.38	1679
Shahid Buttar	Democrat	0.29	4476
Agatha Bacelar	Democrat	-	-

CONCLUSIONS

MODEL RECOMMENDS DEMOCRATS MORE

- **THERE ARE MORE DEM CANDIDATES IN THE BAY AREA**
- **DEMOCRATS IN THE BAY AREA TENDED TO HAVE MORE TWEETS THAN REPUBLICANS**

- Include candidates with little or no Twitter presence
- Word Embeddings could help determine the difference between far left and far right
- Make sure not to be an echo chamber

**FUTURE
WORK**

THANKS

Any questions?

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