

# No API keys? Jupyter problems?

- If you don't have API keys, email:
  1. weryshan@msu.edu
  2. clucas@msu.edu
- Please troubleshoot Jupyter issues or ask Caleb/Shane/new friends for assistance

# Social Media Mining: An Introduction using R & Twitter

Social Science Data Analytics Workshop

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Caleb Lucas (@calebjlucas)

October 14, 2019

Michigan State University

# Agenda

1. Web APIs

2. Twitter API

3. rtweet

4. R sesh!

# Introduction

- A bit about me (and Shane!)

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- Code of Conduct: Respect & Inclusivity

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  - Analyze tweet corpus with text analysis

# Web APIs

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  - Most connections between apps, websites, servers!

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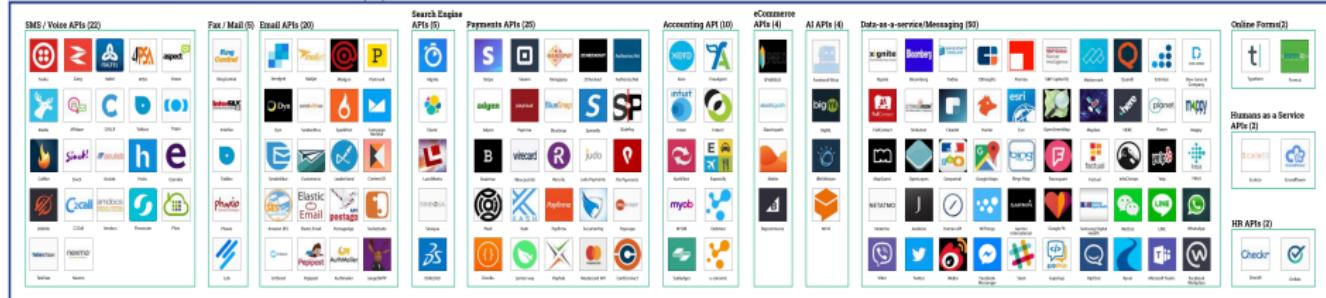
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  - Twitter!

## The API Landscape

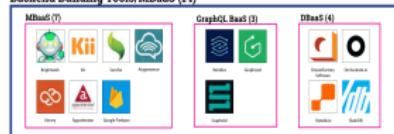
Business Processes as an API/API-as a Product/Transactional APIs (151)



API Lifecycle platform (78)



Backend Building Tools/MBaaS (14)



API Abstraction / Integration Platform (32)



Caleb Lucas (@calebjlucas)

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  - Mucked up with HTML, etc.

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  - [Bot examples]
- Programming packages make this even easier

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  - **Can you collect what you want to?**

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- The API returns JSON, but `rtweet` flattens it



Edit profile

## Caleb Lucas

@calebjlucas

PhD candidate in political science [@michiganstateu](#) | civil war, terrorism, mena |  
[@universityofky](#) alum

📍 East Lansing, MI 🌐 [caleblucas.com](#) 📅 Joined December 2012

227 Following    210 Followers



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72

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227

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 Joined December 2012

This account's Tweets are protected.

Only confirmed followers have access to @calebjlucas's Tweets and complete profile. Click the "Follow" button to send a follow request.

# Caleb Lucas

←  
72 Tweets

Tweets

Tweets & replies

Media

Likes

You Retweeted



Jessica Schoenherr @jessica\_ann87 · Sep 13

Replying to @ProfHansNoel

I am on the market! I am a Ph.D. Candidate at @MSU\_poli\_sci studying American political institutions and the U.S. Supreme Court. My research focuses on how attorneys use written legal arguments to influence the justices and the law.



Welcome!

Ph.D. Candidate, Michigan State University

[jaschoenherr.com](http://jaschoenherr.com)



11

19



You Retweeted



Aycan Kattas @Aycan\_ka · Sep 13

Replying to @ProfHansNoel

ABD @PoliticsUVA, I advance a top-down theory of trade preferences, exploring subnational variation of opposition to understand how trade resurfaced as a salient issue recently - Candidates tap into ethnocentric districts with anti-trade rhetoric to win elections in the U.S.



12

19



← Trends



Trending in United States

**#millennialretirementplans**

5,193 Tweets

**#HowToBeABoss**

Anna Wintour's MasterClass on creativity, leadership, and owning it

Promoted by MasterClass

Trending in United States

**Bork**

5,082 Tweets

Trending in United States

**Hispanics**

37.3K Tweets

Politics

"Who do you like more, the country or the Hispanics?" Trump asks advisor Steve Cortes



Trending in United States

**The Man Who Sold America**

8,874 Tweets

Trending in United States

**#InsteadOfFlyingCarsWeHave**

3,231 Tweets

Trending in United States

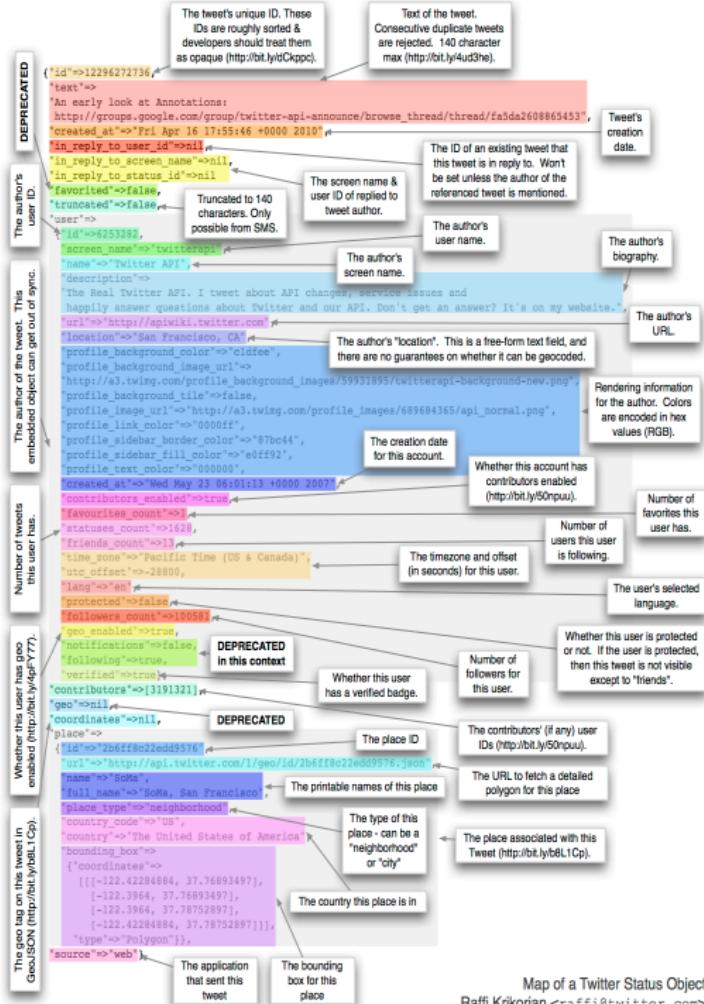
**Saved by the Bell**

Trending with: Battlestar Galactica, Punky Brewster

Television

**Saved by the Bell, Punky Brewster and Battlestar Galactica reboots coming to NBC's Peacock**





## Map of a Twitter Status Object

Raffi Krikorian <raffi@twitter.com>

18 April 2019

**rtweet**

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  - Old code can be problematic, API can change too

R sesh!

---

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[caleblucas.com/files/ssda.zip](http://caleblucas.com/files/ssda.zip)

- This PDF
- R Script
- Jupyter NB
- Jupyter NB HTML