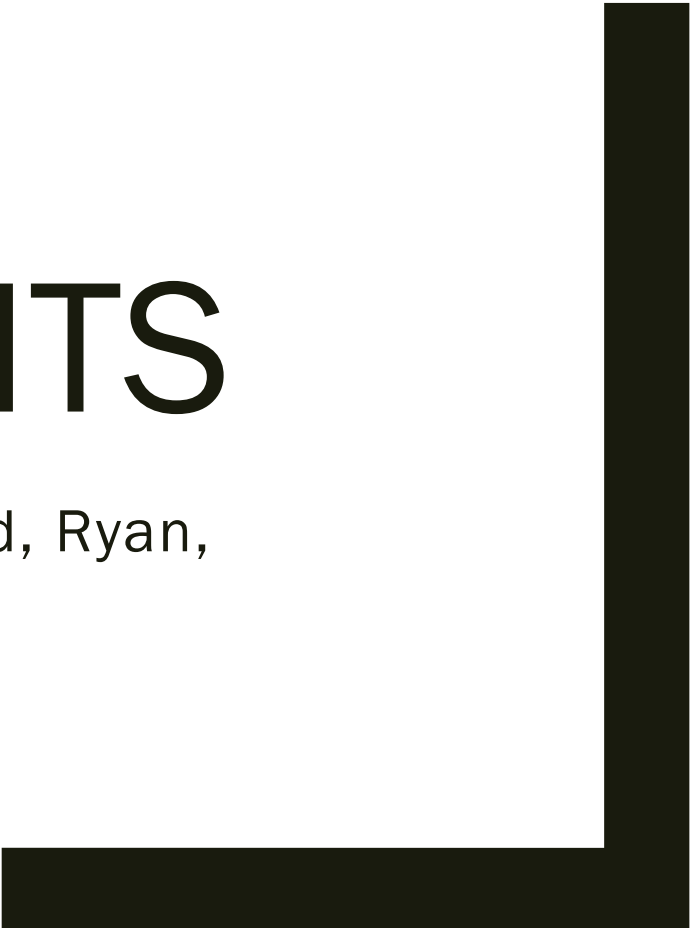# FINRA INSIGHTS

Andre, Andrew, Arda, Pranav, Raymond, Ryan, Steven, Swapneel

Team Intro

- Know each other from the Smith Investment Fund

- Do work on implementing Quality at a Reasonable Price strategy

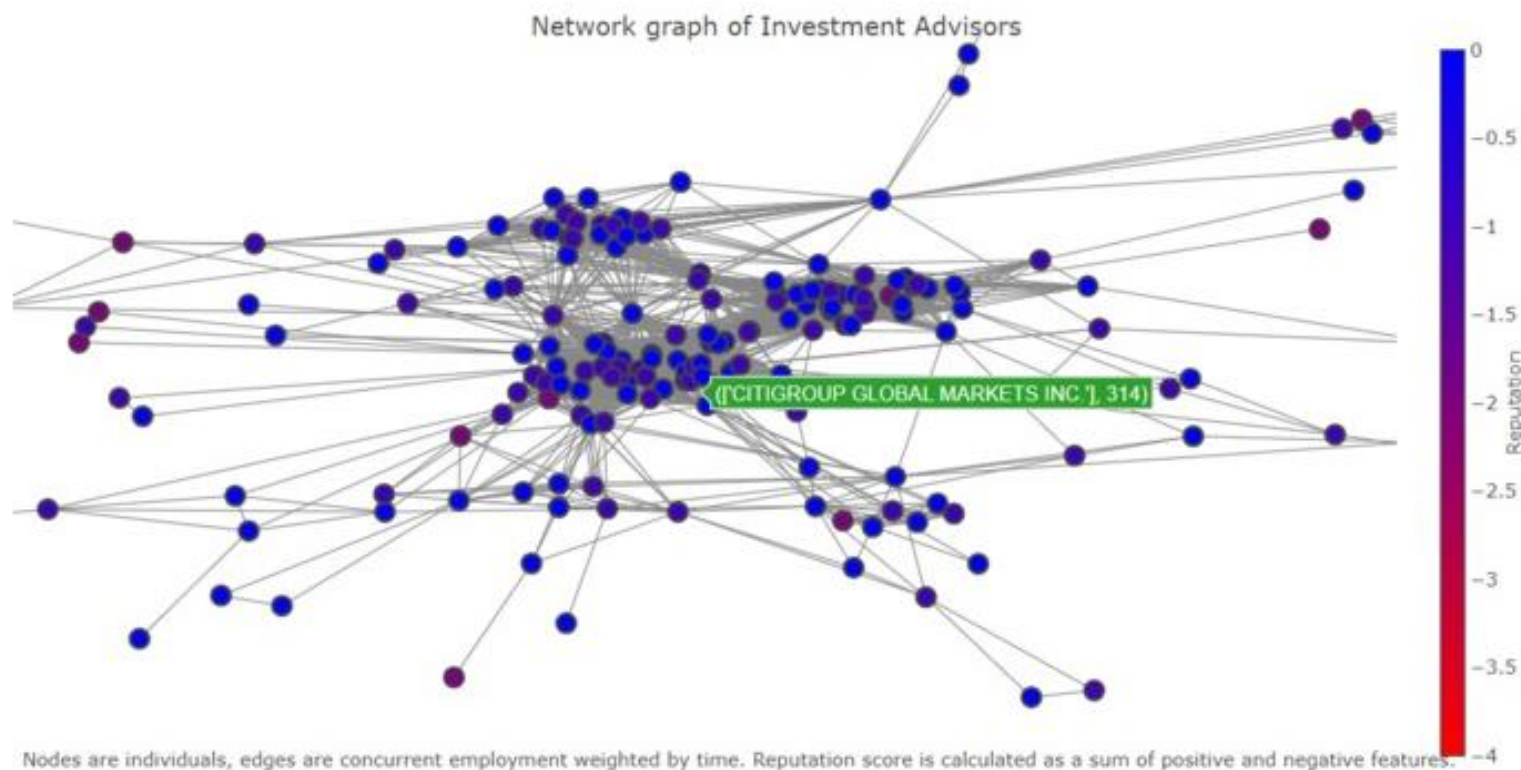- All around best friends

Problem

- Bigger Picture: There are Bad Actors in Business everywhere, but it can be difficult to make sense of data to pinpoint them

- FINRA's Mission Statement: "Provide investor protection and promote market integrity"

Solution

- Many people don't even check BrokerCheck or IAPD

- Create tools to help FINRA analysts better use their investigative resources to protect the public
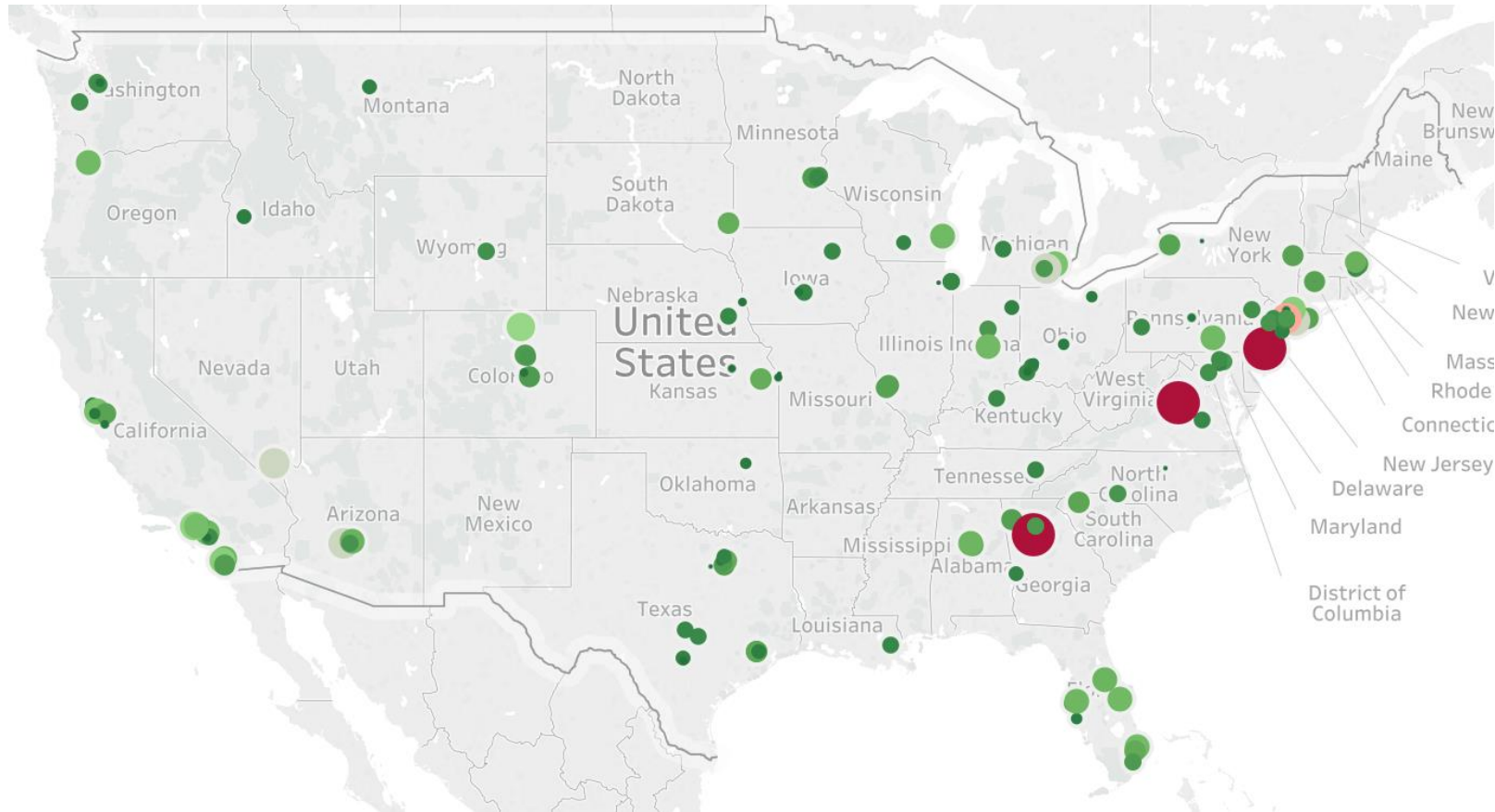
- Explore Data Visually

Solution 1

- *Culture of firms are created by their employees*

- *Show association between people via firm*

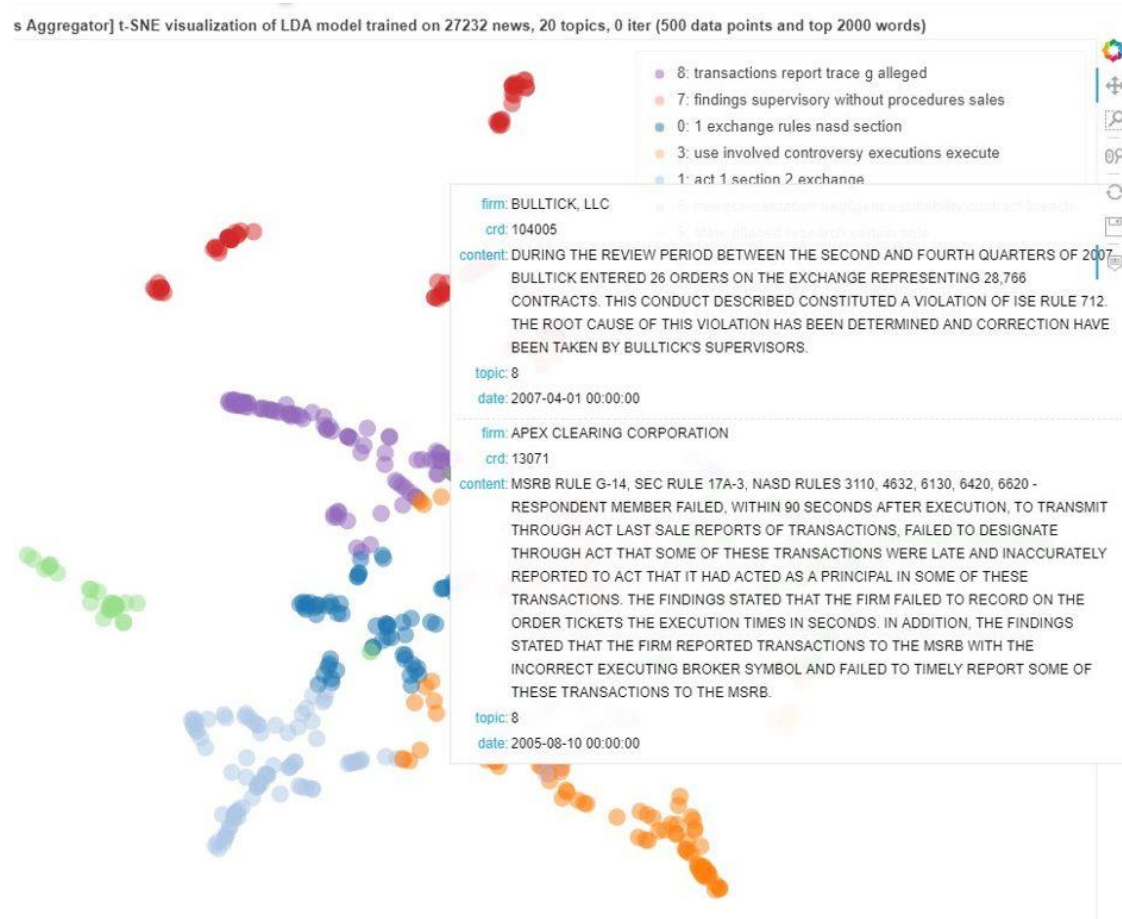Network graph of Investment Advisors

Nodes are individuals, edges are concurrent employment weighted by time. Reputation score is calculated as a sum of positive and negative features.

Solution 2

– *Visually see characteristics of advisers and location*

Solution 3

– *Disclosure files grouped by topical similarity*

s Aggregator] t-SNE visualization of LDA model trained on 27232 news, 20 topics, 0 iter (500 data points and top 2000 words)

Challenges

- **XML is hard to parse**
  - *Created custom solution to create .csv*

- **Conclusions hard to draw**
  - *E.g. hasCustComp = 'Y' – Why?*
  - *Parsed Individual BrokerCheck PDFs of Advisers*

- **Data gets big very fast**
  - *Created proof-of-concept with first 1,000 advisers*

- **Ambitions:**
  - *Track year-over-year changes with Form ADV Data*
  - *Visualize clusters by company*
  - *Simulation with all Data*
  - *Create Database from XML*