

Empowering Knowledge

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Who are We

Ryan Morris

- Senior
- Backend
- API
- Data Collection

Ojas Patel

- Junior
- Backend
- Database
- AWS

Edwin Silerio

- Senior
- Frontend
- Testing
- AWS

Briana White

- Senior
- Frontend
- Testing
- CI/CD

Travis Langston

- Junior
- Backend
- Docker
- UML

Motivation/Goals

We believe that everyone needs to know where their energy is coming from and who is making those decisions. Today, more than ever, we need to make the right choices and how to get our energy and what the impact of energy-related legislation is. We want **EVERYONE** to be able to make educated decisions

Our goal in integrating the data is to see if there is a connection between different aspects of a state such as the primary partisanship, population, GDP, and energy consumption and the representatives they elect. In turn, we want to explore if there are characteristics of representatives that might determine how they vote on different energy bills and legislation.

Demo

[EmpoweringKnowledge.me](#)

Tools

Frontend

- React
- JavaScript

Backend

- AWS
- Postman
- Docker
- Python
 - Flask/Flask-Restless
 - SQLAlchemy
 - Pandas
 - Black
- MySQL

Testing

- Selenium
- Postman
- Python
 - unittest
- JavaScript
 - Mocha

What did we do well?

- Were able to maintain a separation between frontend and backend, which meant that we had a good channel of communication
- Meeting at the start of each phase to plan everything out
- Starting with React in Phase 1 instead of HTML
- Learning new material quickly
- Always finishing by the deadline

What did we learn?

- How to use React
- How to host and deploy a website
- Division of frontend and backend responsibilities
- How to interact with APIs and set up our own database with data from them
- How to create our own API
- How to document a large code base
- How to write effective tests

What can we do better?

- We can do better on starting earlier instead of cramming into the last few days of each phase
- We could have made better use of Gitlab issues
- We ran into issues with merge conflicts, so we should have used Git better
- We could have used our CICD pipeline for deployment rather than just testing

What puzzled/puzzles us?

- The DataUSA API we used was really poorly documented
- The EIA API worked sometimes, other times it would throw random errors
 - It would also run at very variable speeds
- How to host our API on EC2
- How to deal with Congress members who served multiple terms

CongressFor.Me

A website to find out about your representatives,
their districts, and how they receive funding

What did they do well?

- They did a great job of including sorting directly into the tables with up and down arrows
- They did a great job of including a pie chart visualization for each of their donors
- They did a great job of including a slideshow into their splash page, this made the website look really nice

What did we learn from them?

- We learned that a lot of companies that we assumed would donate to only one political party donated heavily to both Republicans and Democrats
- We learned about beautiful front end design and user experience
- We learned that pagination without buttons is also a clean implementation
- We learned that representatives have a large donor base that supports them

What can they do better?

- They could have scaled the images of each of the representatives better, it made them look a bit odd
- They could have included more information on each of the donors, such as a bit of information on the group, etc. I also thought that the image for the donors was a bit excessive as most of the images ended up being the default one
- We thought the districts could have been sorted/grouped by state by default
- Could have linked models both ways - Representatives have links to donors, but donors don't have links to Representatives.

What did they do that puzzled us?

- We were a bit puzzled why hitting enter on the main search bar did not start a search
- The donors page had filters based on Party and State but filtered based on numerical value, we were confused as to what these were filtering on
- We were confused why Independent wasn't an option for filtering for party of representative