

# 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

# Demo

[EmpoweringKnowledge.me](#)

# Tools

## Frontend

- React
- React Router Dom
- Reactstrap
- D3

## Backend

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

## Testing

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

# What did we do well?

- Separation between frontend and backend roles, with good communication between the two
- 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?

- Division of frontend and backend responsibilities
- How to use React
- How to host and deploy a website
- 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?

- Start earlier each phase and pacing our work better
- Make better use of Gitlab issues
- We ran into issues with merge conflicts, so we should have used Git better
- Using our CI/CD pipeline for deployment rather than just testing



# What puzzled/puzzles us?

- Poorly documented APIs (DataUSA)
- Difficult-to-navigate APIs (U.S. Energy Information Association)
  - Plus occasional errors and slow response time
- Hosting our API on EC2
- Dealing 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 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. We 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?

- The filters on the donors page don't work when max is set to 0, even though there are some donors that don't have any contributions to one party.
- We were confused why Independent wasn't an option for filtering for party of representative