

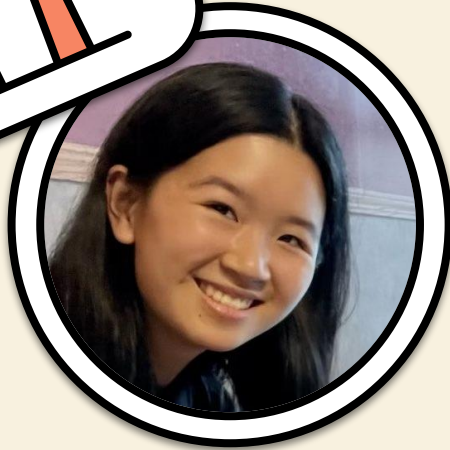
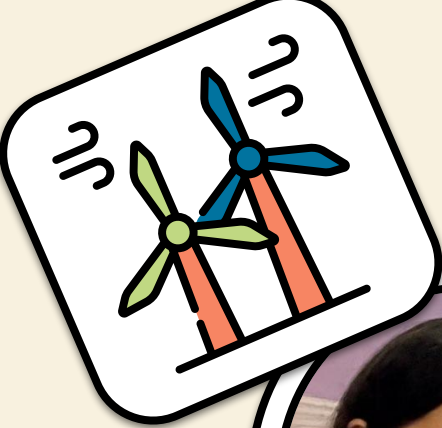
Location Location Location!

🌸 Code Ada 2022 🌸

Emma C, Samuel G, Sunwoo B



CodeGreen



Emma Chen

Frontend
React.js



Sunwoo Baek

Backend
Flask
UI/UX

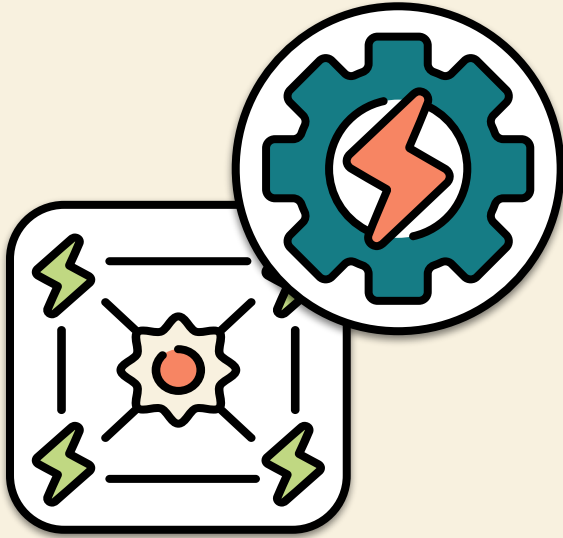


Samuel Gerstein

Backend
Python



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Cause

Causes/Problems

01

Product

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02

Process

How did we make, tools used, challenges

03

Future Goals

Implementing Changes

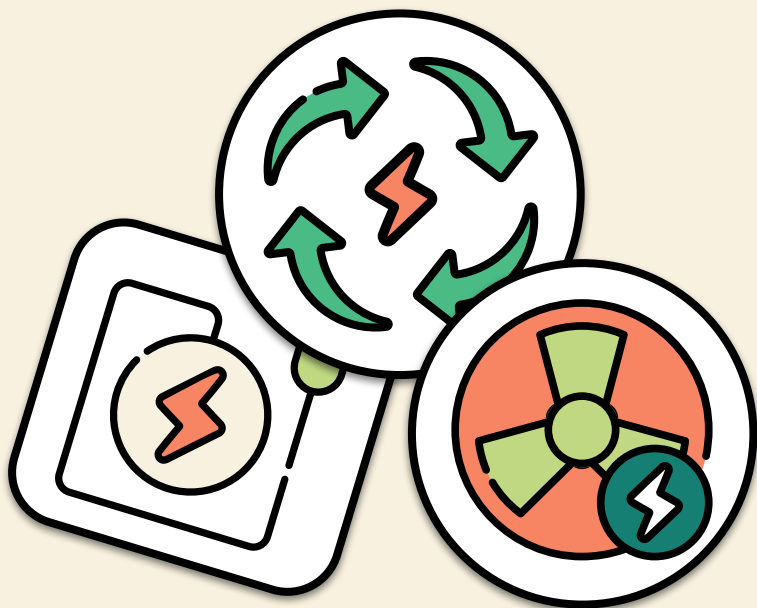
04

01

Cause

Some energy sources are better than others for certain amount of land:
Different contexts of locations make a rapid clean energy transition more complicated





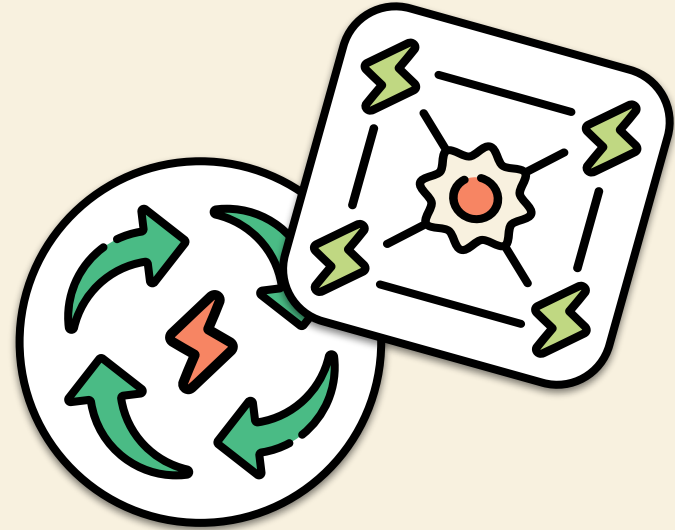
02

Product

A simple interface for energy providers
and community members to
determine best energy source

DEMO

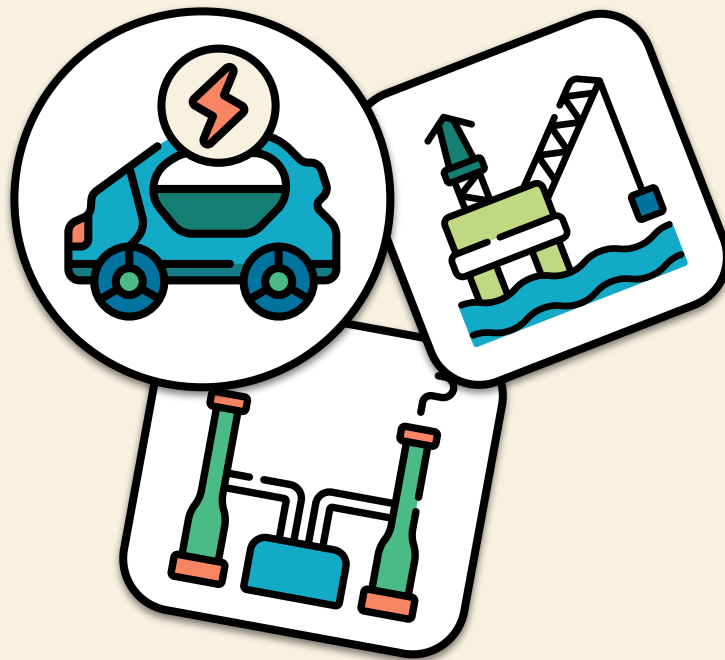
Let's turn Urbana Champaign
into a giant power plant...
what type of renewable
energy should we produce?



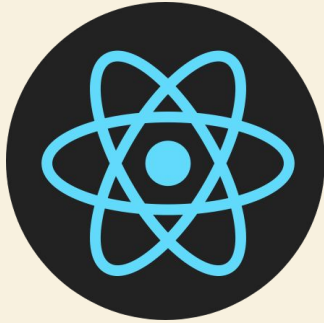
03

Process

The fun part



TOOLS



REACT



Python

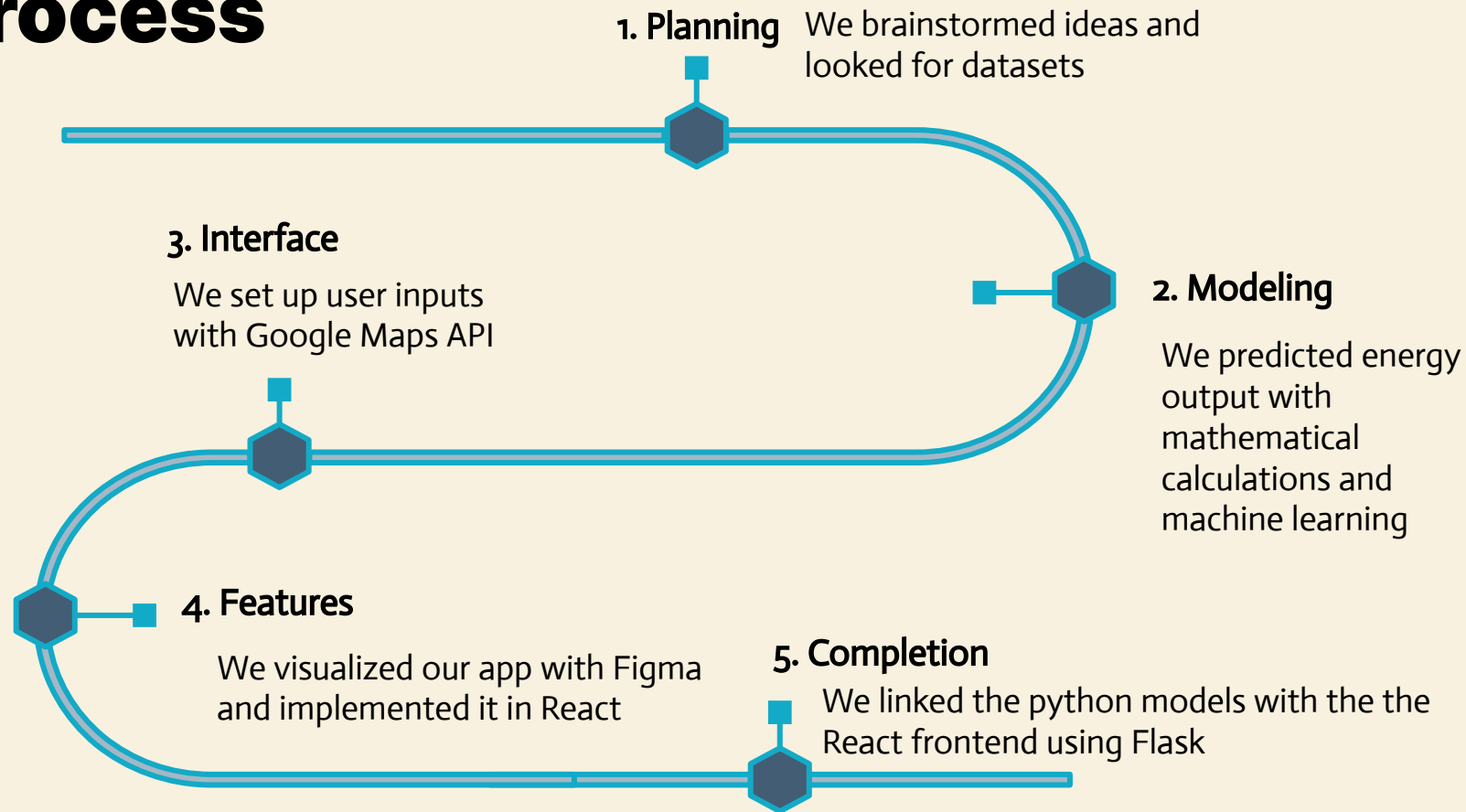


Meteostat



pvlib

Process



Challenges & Learned



Challenges

Sunwoo:

- Managing platform for React and Flask

Sam:

- Energy is very interdisciplinary
- Quality Datasets
- Many, Many Different Features
- Many Assumptions had to be made

Emma:

- Google Maps API requires billing
- Git merging
- Last minute frontend crunch



What we learned

Sunwoo:

- Interacting React to Flask

Sam:

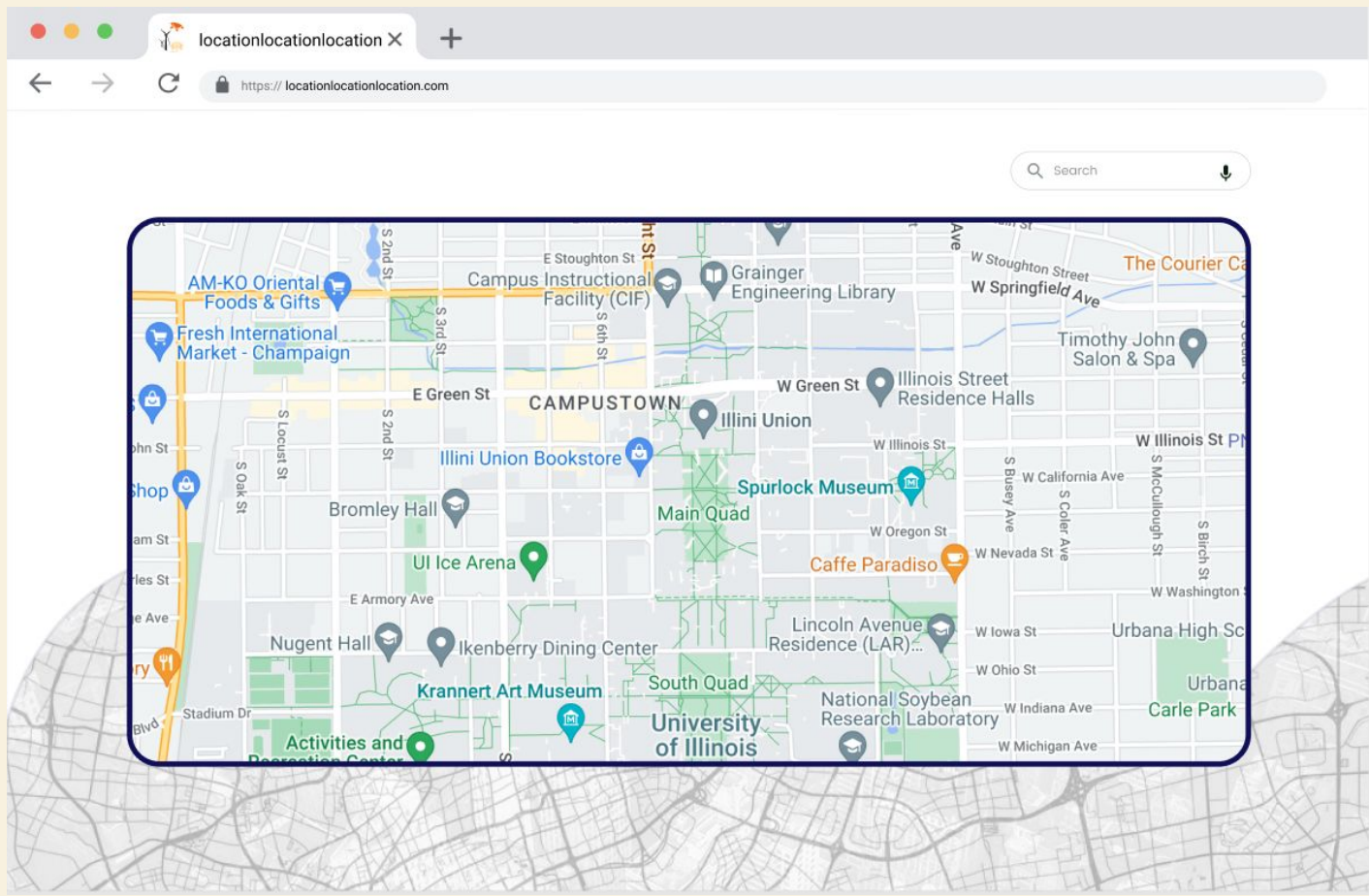
- Physics, Civil/Electrical Engineering process
- Interacting with weather and solar APIs in Python

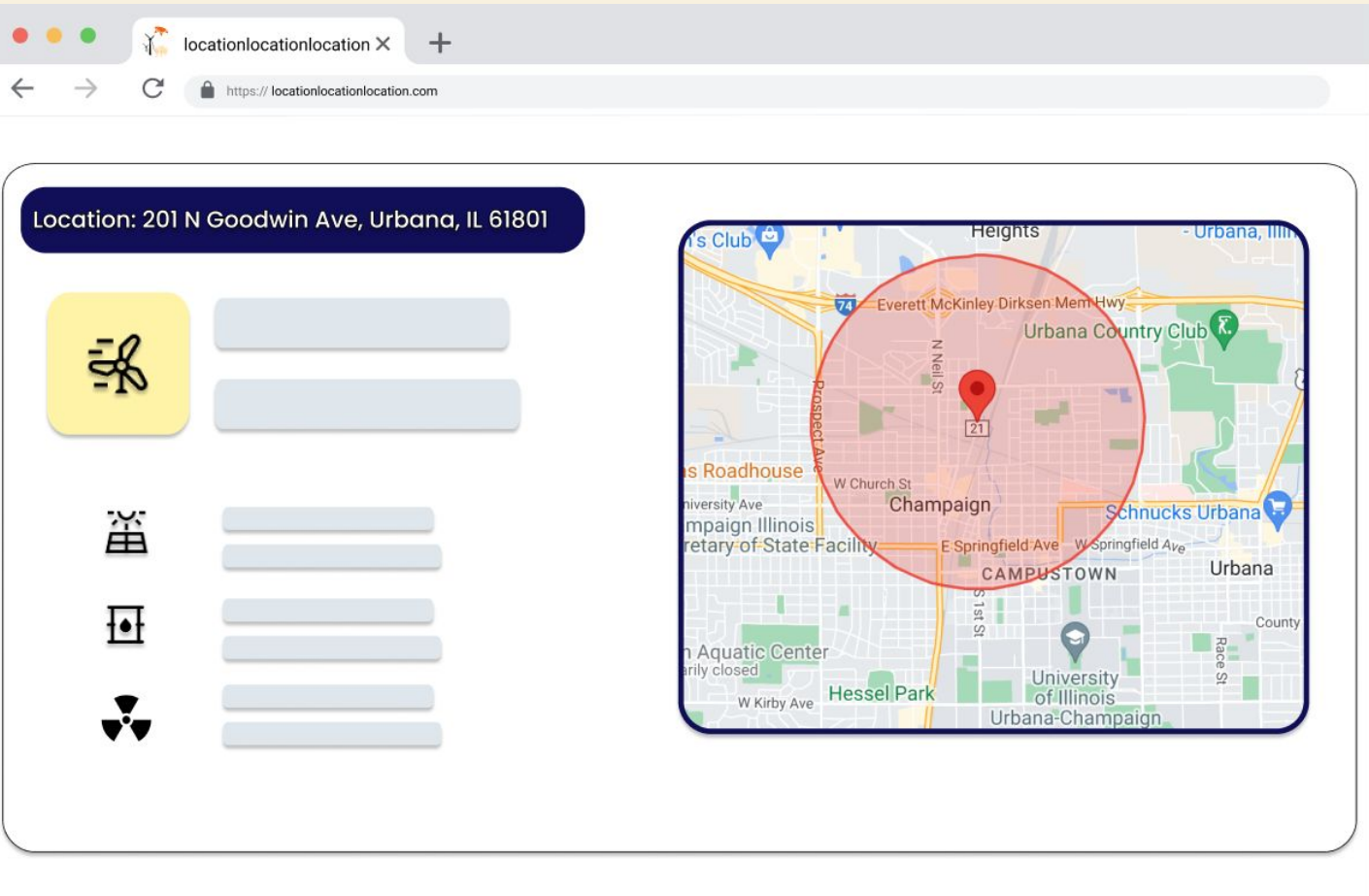
Emma:

- Google Maps API
- RESTful API

Location Interactive Map









04

Future Goals

- Predicting cost and considering net-metering
- Predicting emissions
- Flipping it, how much land we need and where based off of a community given
- Given land, using 3d topology to figure out viability of energy sources and best position of them
- Microgrid optimization + automated urban-planning

THANKS

That's all from us!

Do you have questions for
CodeGreen?

