

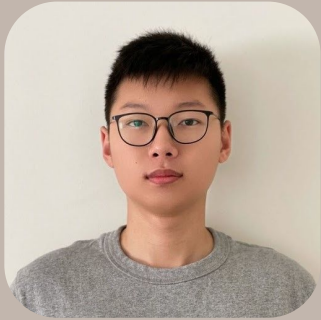
TEAM PINA COLADA

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AgMonitor | Thomas Kuo, Olivier Jerphagnon



THE CAPSTONE TEAM



Kaiwen Li (Team Lead)



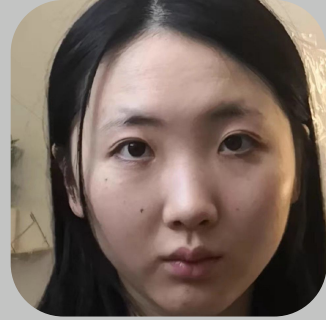
Alex Mei (Scribe)



Jasun Chen



Jayden Yu



Yuyuan Wang

SETTING

You are a microgrid owner!



How would you manage this electrical setup?

PROBLEM

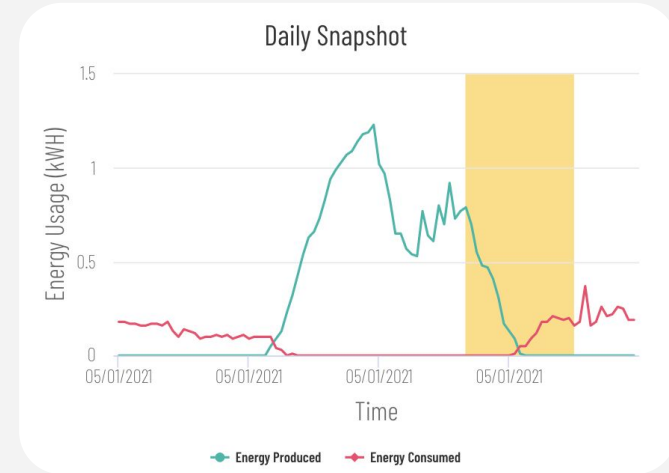
- Lack of communication tools and control systems for microgrids to efficiently integrate renewable energy
- Tradeoff between mitigating renewable energy waste and system vulnerability to power shut offs



SOLUTION

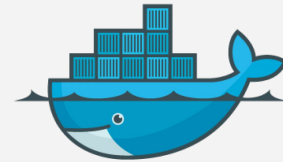
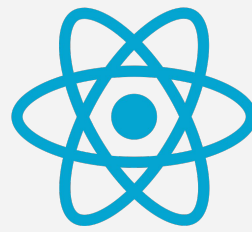
1. Manage and visualize energy generation, storage, and usage on a single platform
2. Leverage artificial intelligence to provide recommendations to users to optimize energy consumption

Ultimately, help users find personalized balance

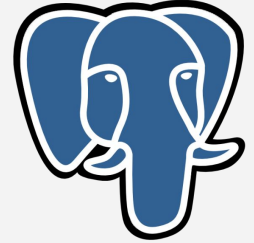


IMPLEMENTATION

- React, Django, PostgreSQL
- Docker (local), Heroku (prod)
- Google Oauth for User Specific Data
- React Datagrid + Highcharts for Visualization



docker



PostgreSQL



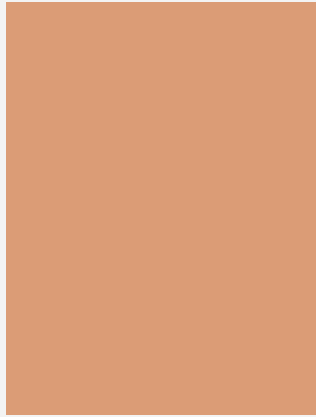
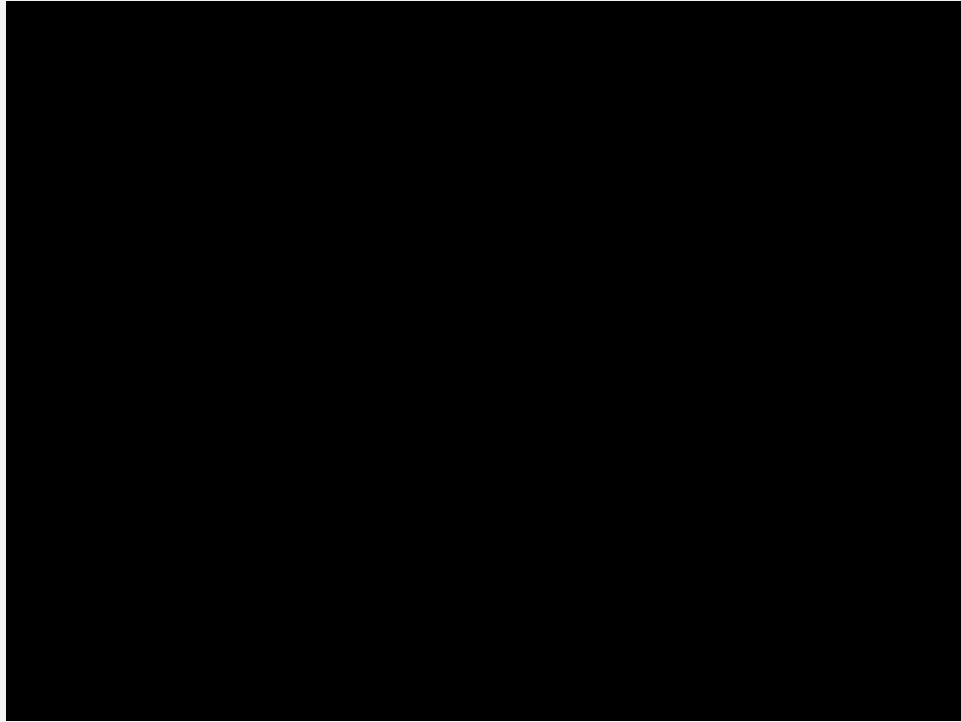
HEROKU



LIVE DEMO*

*barring any technical difficulties

CONTINGENCY



CHALLENGES

- Designing an intuitive and user-friendly UI
- Integrating with data visualization and exploration tools
- Clarity in learned AI optimization algorithms
- Testing for quality assurance



IN QUEUE:

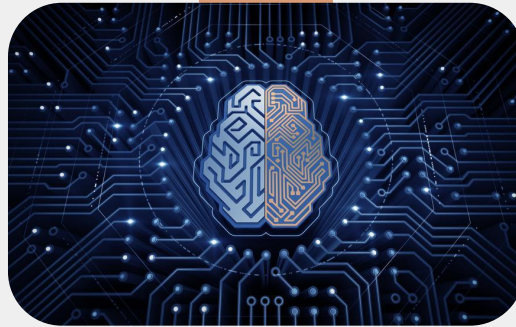
ASSET CONFIGS

Customize electrical assets to personal needs and restrictions



AI OPTIMIZATION

Improve energy efficiency with machine optimized recommendations



AUTO-NOTIFICATIONS

Opt-in to convenient notifications for recommended changes



CREDITS





QUESTIONS?