TEAM PINA COLADA

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THE CAPSTONE TEAM

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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
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
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?