Vlog #4

Dec. 6, 2021 - Feb. 1, 2022

Team SolarSize
Tristan Brown-Hannibal
Karlee Fidek
Kaden Goski

+

GREENWAVE
INNOVATIONS

Team Member Reintroductions

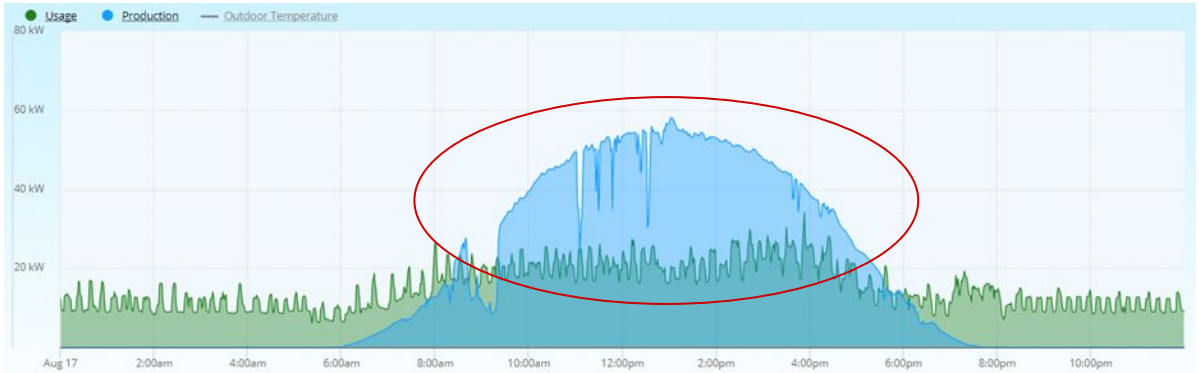
Tristan
Front-End Development
Server Management

Karlee
Front-End Development
Documentation Management

Kaden
Back-End Development
Solar Estimation Model

About This Project

- In partnership with a local company - Greenwave Innovations
- A tool that utilizes building consumption metrics and solar intensity data to calculate accurate ROIs
- Help to determine over or under generation windows and size solar generation solutions accordingly
- Alert of issues when dealing with real time data



Project Activity Dates

Dec. 6th, 2021 - Feb. 1, 2022

- Project Bazaar Day #1
- Met with Greenwave Innovations and Dr. Yow
- Vlog #4
- Finished MVP 2

Team Member Contributions

Tristan

- Added map selection
- Added overlay of consumption using a .CSV file
- Switched from ApexCharts.js to highcharts.js
- Began progress on summary page
- Added UX to loading experience

Kaden

- Added variables and tweaked solar estimation model
- Explored system losses and the effect of dust and snow

Team Member Contributions

Karlee

- Add new inputs for billing and solar installation
- Add tooltips for inputs
- Change date input to use date picker
- Gantt chart
- Trello Board
- Meeting minutes

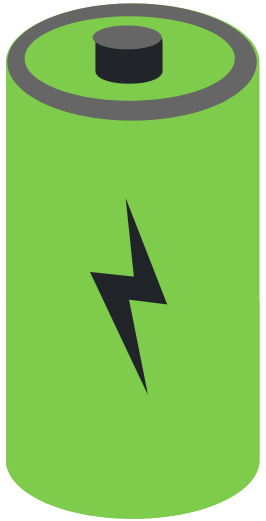
Group

- Met with Greenwave Innovations
- Met with Dr. Yow
- Received consumption data from Greenwave Innovations
- Project Bazaar #1
- Completed MVP 2

Project Status

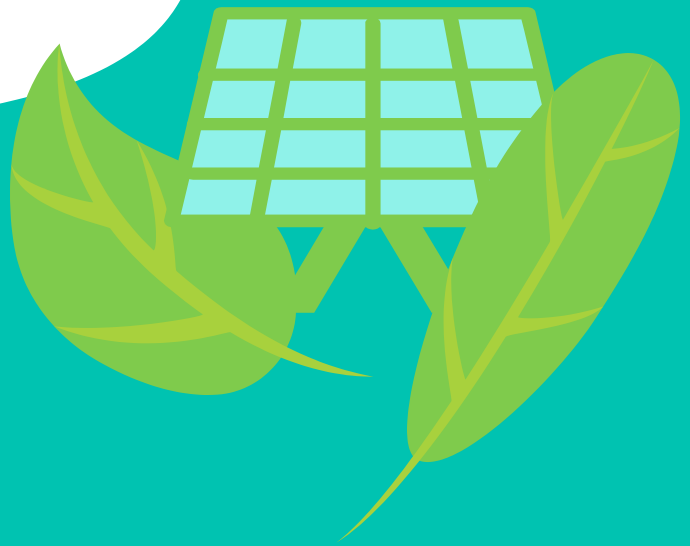
Green

- MVP 2 Complete
- On track with our estimated project timeline from our Gantt chart

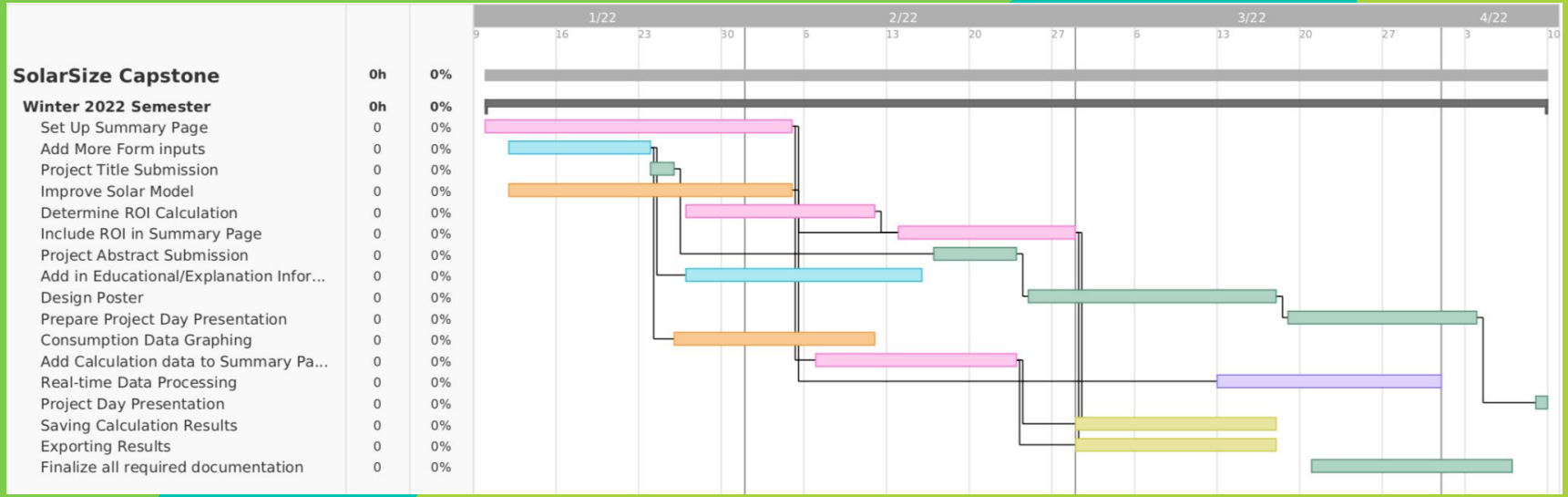


Project Issues/Changes

- Lack of ROI and billing knowledge



Gantt Chart


1/22
2/22
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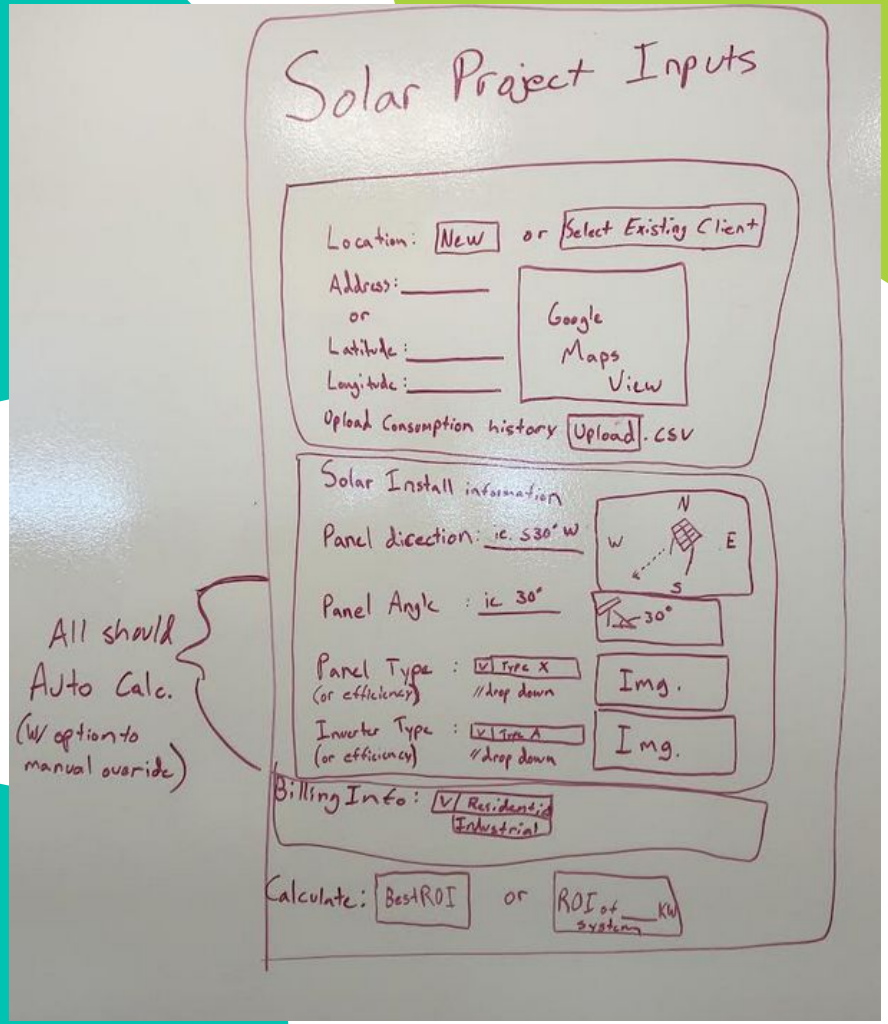
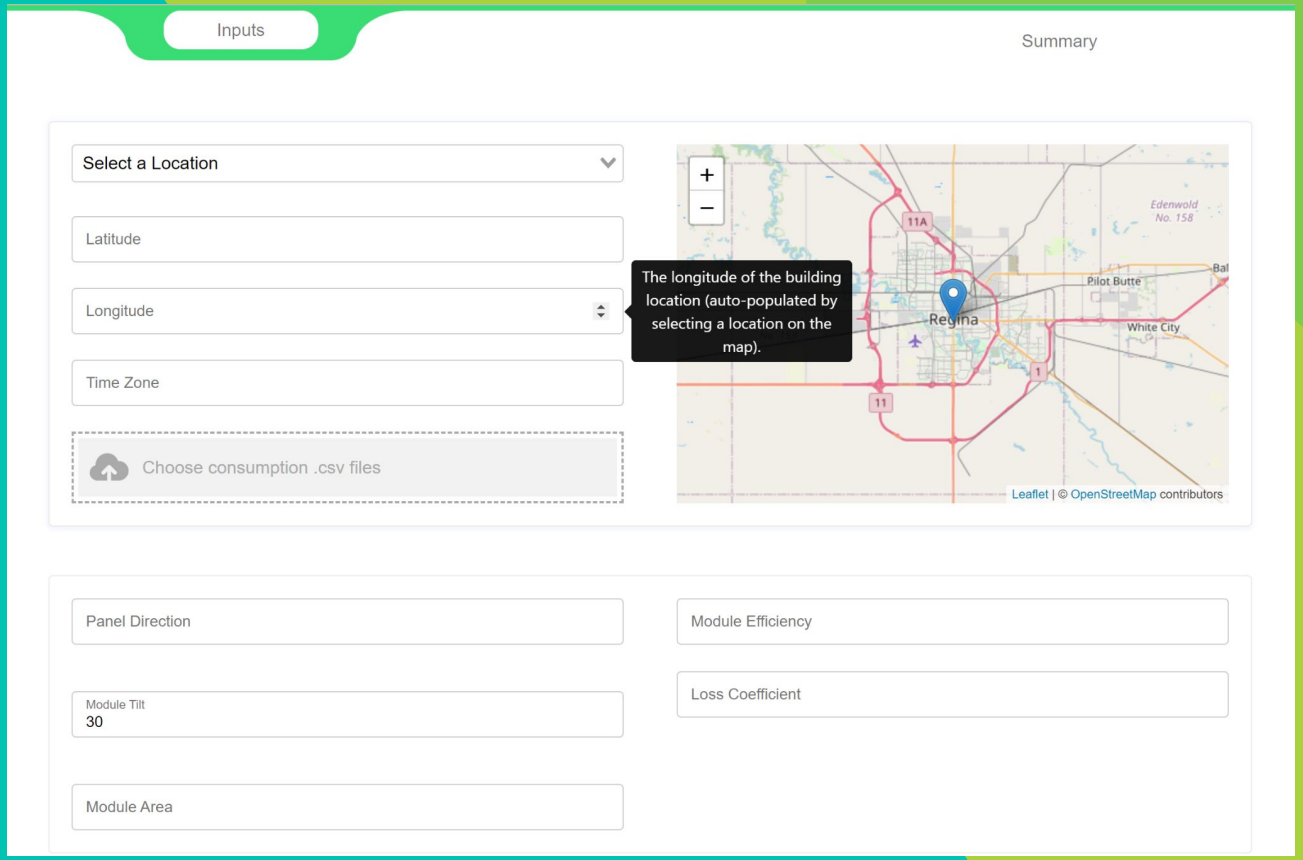
3
10
SolarSize Capstone 0h 0%
Winter 2022 Semester 0h 0%
Set Up Summary Page 0 0%
Add More Form inputs 0 0%
Project Title Submission 0 0%
Improve Solar Model 0 0%
Determine ROI Calculation 0 0%
Include ROI in Summary Page 0 0%
Project Abstract Submission 0 0%
Add in Educational/Explanation Infor... 0 0%
Design Poster 0 0%
Prepare Project Day Presentation 0 0%
Consumption Data Graphing 0 0%
Add Calculation data to Summary Pa... 0 0%
Real-time Data Processing 0 0%
Project Day Presentation 0 0%
Saving Calculation Results 0 0%
Exporting Results 0 0%
Finalize all required documentation 0 0%

Greenwave Feedback



Demo


Inputs
Summary
Select a Location
Latitude
Longitude
Time Zone
Choose consumption .csv files
The longitude of the building location (auto-populated by selecting a location on the map).
Regina
Pilot Butte
White City
Edenwold No. 158
11A
11
1
Leaflet | © OpenStreetMap contributors
Panel Direction
Module Efficiency
Module Tilt
30
Loss Coefficient
Module Area

Next Up

Tristan

- Investigate SaskPower API for billing information
- Begin working on ROI calculations
- Implement additional inputs as needed for ROI calculations
- Add some error tolerance/feedback to form submit
- Add address support to map

Kaden

- Implement physical sizing calculations
- Implement inverter inputs
- Automatic determination of angles and direction based on buildings

Next Up

Karlee

- Input form validation
- Look into calculations or results to display on summary page
- Explanation/educational information
- Look at saving location specific data
- UI improvements
- Documentation
- Meeting minutes

Group

- Meet with Greenwave Innovations
- Meet with Dr. Yow
- Get ROI and billing information from Greenwave Innovations
- Complete project day requirements

Team Reflection

- **Does the team feel "on track"?**
  - Green Status
  - Done MVP 2

- **What progress does the team particularly feel good (great) about?**
  - Map input for location inputs (latitude and longitude)
  - Accepting .csv file input and graphing included consumption data

Team Reflection

- **What barriers (if any) does the team feel are a current impediment to success?**
  - None at this moment

- **What help (if any) does the team require to move positively forward?**
  - Greenwave Innovations' input on billing calculations and ROIs

- **What questions or concerns does the team have (if any)?**
  - No questions or concerns at this time

Thanks for Watching!

CREDITS: This presentation template was created by **Slidesgo**, including icons by **Flaticon**, and infographics & images by **Freepik**