Final Deliverable
Info 474
Eunji Ahn
12 March 2023
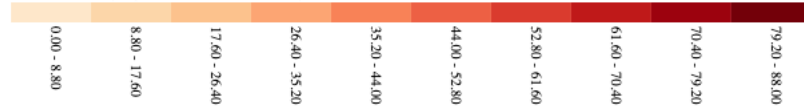
Weather HeatMap

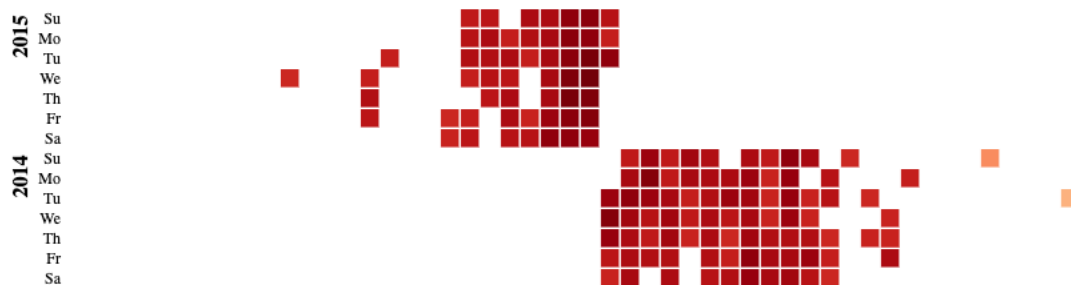City: [Charlotte ⌄]
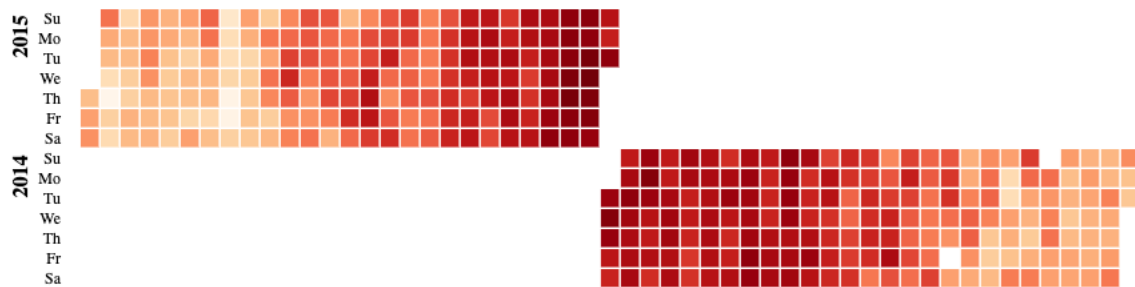
Show: [Temperature ⌄]

Click on category to select/deselect days

Weather HeatMap

City: [Charlotte ⌄]

Show: [Temperature ⌄]

Click on category to select/deselect days

Weather HeatMap

City: [Charlotte ▾]

Show: [Temperature ▾]

Date: 2015-06-25
Value: 86

6/25/2015: 86.00

Click on category to select/deselect days

0.00 - 8.80	8.80 - 17.60	17.60 - 26.40	26.40 - 35.20	35.20 - 44.00	44.00 - 52.80	52.80 - 61.60	61.60 - 70.40	70.40 - 79.20	79.20 - 88.00

Weather HeatMap

City: [Charlotte ▾]

Show: [Precipitation ▾]

Click on category to select/deselect days

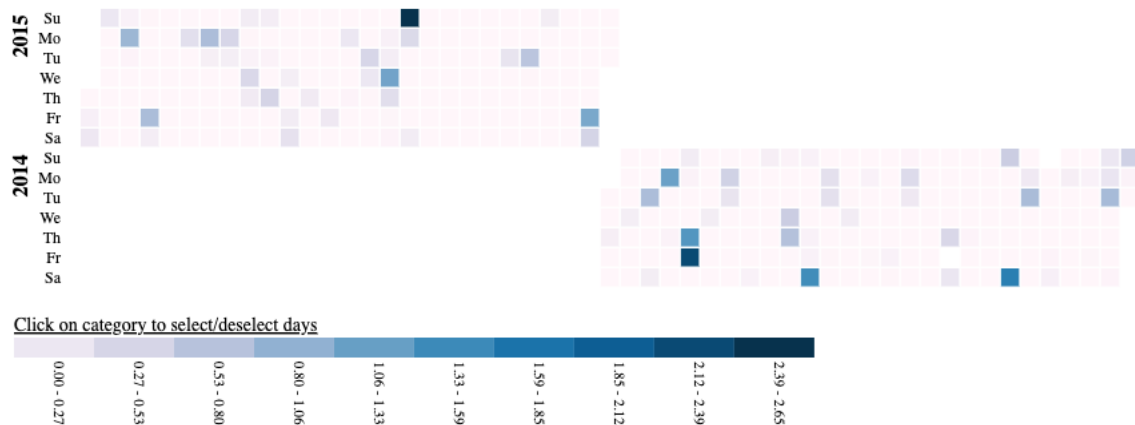| 0.00 - 0.27	0.27 - 0.53	0.53 - 0.80	0.80 - 1.06	1.06 - 1.33	1.33 - 1.59	1.59 - 1.85	1.85 - 2.12	2.12 - 2.39	2.39 - 2.65
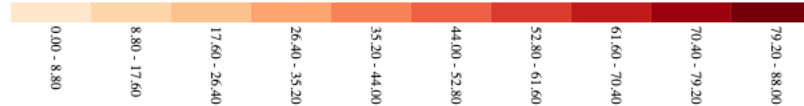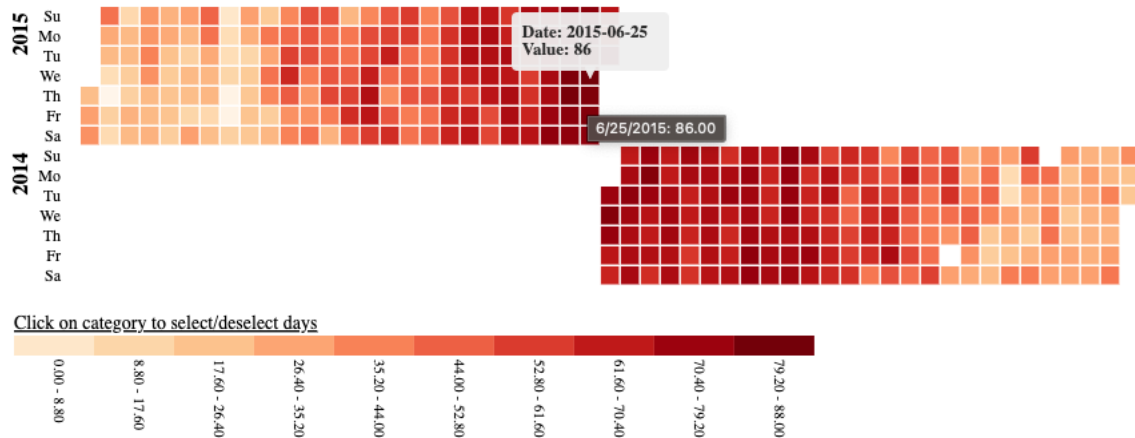
The visualization tool has been designed to assist farmers in many ways. Farmers are often challenged with the task of optimizing irrigation schedules for their crops, especially during extreme weather conditions such as droughts and floods. This tool offers them a comprehensive view of precipitation and temperature trends, enabling them to plan their irrigation schedules more efficiently.

In many cases, farmers' productivity depends on accurate and timely information regarding climate patterns. The visualization tool provides daily information on average temperature and precipitation trends, giving farmers the ability to make more informed decisions regarding

planting and harvesting schedules. This helps them maximize their productivity while minimizing the risk of crop damage due to extreme weather conditions.

Another essential aspect of the visualization tool is its ability to help farmers avoid potential flooding or drought. By providing information on precipitation trends, the tool enables farmers to take the necessary measures to prevent crop damage. For instance, farmers can adjust their irrigation schedules based on the amount of precipitation, avoiding overwatering or underwatering their crops, and ultimately, maximizing their crop yield.

Furthermore, the visualization tool's calendar grid line allows users to compare each day of the month using color-coded boxes that provide an overview of precipitation or temperature trends. This feature is useful in identifying the highest or lowest average precipitation or temperature for each day, enabling farmers to make informed decisions based on the data.

However, the tool has a limitation in that users cannot view both precipitation and temperature data simultaneously. Despite this limitation, the visualization tool remains a valuable resource for farmers, offering a user-friendly interface, detailed information, and insights that can help them improve their crop yield and positively impact their livelihoods.

In conclusion, the visualization tool is an essential resource for farmers, offering them valuable insights and information that can help them make informed decisions to optimize their crop yields. With this tool, farmers can monitor precipitation and temperature trends, plan their irrigation schedules, and take the necessary measures to prevent crop damage. The visualization tool ultimately provides a powerful and intuitive way to help farmers make the most of their farming practices, leading to greater productivity and a more sustainable future.

The visualization tool presented in this description provides users with an easy-to-use and visually appealing display of temperature and precipitation data. The tool utilizes a calendar-like format, with each box on the calendar representing a day and displaying the temperature and precipitation data for that day. The color-coding of the boxes helps the user to quickly and easily identify the value of each data point. The lighter colors represent lower values, while the darker colors indicate higher values.

To provide the user with a more comprehensive understanding of the data, a color scale is included that gives an overview of the color code for each box. This feature facilitates comparisons and allows users to identify patterns and trends in the data more easily.

The tool also allows users to switch between viewing the day's precipitation or temperature data, with precipitation data represented by shades of blue and temperature data represented by shades of red. The color scale is divided into 10 categories, giving users the option to select or deselect the desired range.

Users can also access weather data for different locations using the drop-down menu located at the top of the visualization. This feature enables users to compare weather data between

different locations, which is particularly useful for individuals who need to monitor weather conditions in multiple locations.

To provide users with more detailed weather information, the tool also includes a hover feature. By hovering the mouse over a specific day on the calendar, users can access additional information about the weather conditions for that day.

Overall, the tool's intuitive design and user-friendly interface make it an excellent resource for individuals who need to quickly and easily access weather information for specific locations. Whether for personal or professional use, the tool's features enable users to analyze and understand weather data in a comprehensive and visually appealing way.