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# SUSTAINABLE?

#### Sujatha, Deeksha, Meghana, Nagendra, Yosha, Surya

Please upload a high-quality, well-lit headshot against a plain background for each of your team members.



### **SUMMER APPATHON**

## OVERVIEW

- App Name: SustAlnable
- **App Description:** The goal of our app 'SustAlnable' is to educate users regarding the challenges of AI, like AI's carbon footprint, water footprint and its social impacts including sustainable solutions to reduce it. App also has Water footprint and Carbon footprint calculators and AI content detection tools.
- **Track:** Mixed Team
- Category: Climate change and sustainability

## THEME

### In 100 words or less, describe the problem that you chose to address, and why you were interested in solving it. Please note that this portion of your submission will be published if you are selected as a finalist or winner.

As we know, AI is our future, we would like to address the issues of AI like the carbon footprint, water footprint and social footprint. The goal of SustAInable APP is to harness the potential of AI for the betterment of humanity, while ensuring its applications align with ethical and responsible principles. By following the sustainable solutions of AI, the Carbon footprint ,Water footprint and Social Footprint can be considerable reduced and the society can harness the immense potential of AI to create a equitable, sustainable and beneficial future for all.

Computational part such as Carbon footprint calculator and Water footprint calculator and tools for Power Usage Effectiveness (PUE) calculation for data centers , AI generated content detector tools are the highlights of the APP.

## INSTRUCTIONS



Step 1: Front Screen of the App depicting how the positive and negative aspects of Al can be turned to be completely positive.



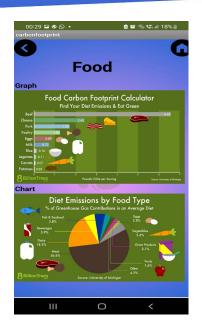
Step 2: Main menu with Carbon, Water and Social footprint and Positive Al



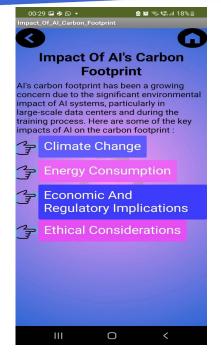
Step 3: Carbon footprint of Al is addressed with impacts and solutions



## INSTRUCTIONS



:Step 6: Show the Carbon footprint distributed for the food category



Step 5: Briefs the impact if Al's carbon footprint

0

**Carbon Foot Print Calculator** 

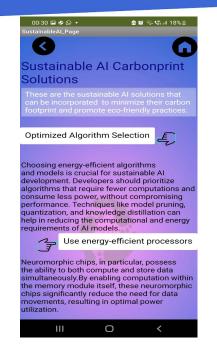
Your got 86 Points, if your points are more than 60 you need to reduce the activities that increase the Carbon Foot Print

**Reveal Results** 

It appears that your carbon footprint is quite high. This means that your daily activities are contributing significantly to greenhouse gas emissions and climate change. However, don't worry, there are many steps you can take to reduce your carbon footprint and make a positive impact on the environment

Step 6: Carbon footprint Calculator revealing the results.





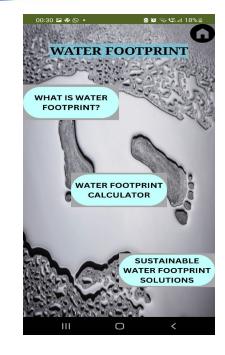
Step 7: Explaining the solutions for reducing the Carbon footprint of Al

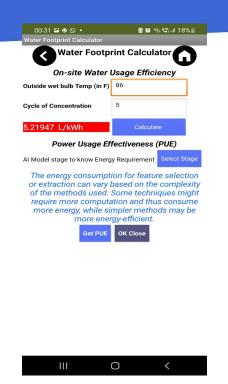


Step 8: Shows the Carbon footprint of the items when clicked.

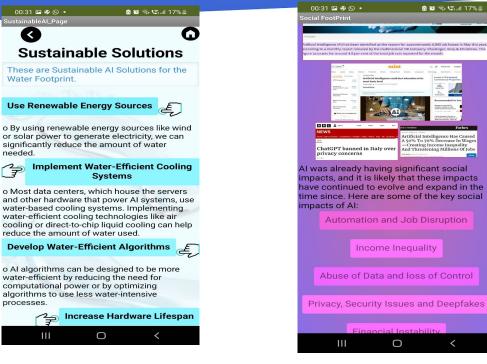
#### Step 9 Water footprint Menu







Step 7: Water footprint Calculator



Step 8. Stating the sustainable solutions for reducing the water footprint

Step 9: Social impacts of Al with news articles



#### 00:32 🖬 🕏 🛇 🔸

Social FootPrin

#### **Tool Kits to check AI**

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As AI is advancing so are the technologies to identify if the content is generated by AI or not . Below is a list of few providers .

| Crossplag        |                        |   |
|------------------|------------------------|---|
|                  |                        |   |
| Content at Scale |                        |   |
|                  |                        |   |
| Copyleaks        |                        |   |
| GLTR             |                        |   |
| GLIK             |                        |   |
| Writer           |                        |   |
|                  | Become a Detector Now! |   |
|                  | Become a Detector Now! |   |
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Step 10:: Al content detector tools with the links



Step 11:: Stating the AI Safeguards that some companies have agreed

upon



Step 12:: Depicts the fact that if the footprin of AI are tried to be reduced, AI can be more Sustainable



In 100 words or less, describe the limitations of your app and what people should carefully consider when using it.

Some internal error is reported when the screen "AlCarbonFootprint" is clicked which is empty. The screen cannot be removed as well.



### Please list the names of anyone who helped you with developing your app, and describe what type of help they provided.

- Person #1: Making Al Less "Thirsty": Uncovering and Addressing the Secret Water Footprint of Al Models Reasearchgate Research paper
  by Pengfei Li UC Riverside, Jianyi Yang -UC Riverside, Mohammad A. Islam UT Arlington, Shaolei Ren1 -UC Riverside for water footprint methodology
- Person #2: AI content detectors: <u>https://goldpenguin.org/blog/check-for-ai-content/</u>

https://writer.com/ai-content-detector/

http://gltr.io/dist/index.html

https://copyleaks.com/ai-content-detector

https://contentatscale.ai/ai-content-detector/?fpr=penguin

https://originality.ai/?Imref=OC-Ixg

https://undetectable.ai/?via=penguin

PUE calculation : Schneider Electric <a href="https://www.se.com/ww/en/work/solutions/system/s1/data-center-and-network-systems/trade-off-tools/data-center-efficiency-and-pue-calculator/">https://www.se.com/ww/en/work/solutions/system/s1/data-center-and-network-systems/trade-off-tools/data-center-efficiency-and-pue-calculator/</a>



# APPENDIX

- Credits: Images from google, shutterstock and canva
- Extension Used : UrsAI2 SideBar for menu



The goal of SustAlnable APP is to create awareness about the Carbon, water and social footprints of AI, the impacts it fosters and the Sustainable solutions for reducing the footprints.

Computational part such as Carbon footprint calculator and Water footprint calculator and tools for Power Usage Effectiveness (PUE) calculation for data centers , AI generated content detector tools are the highlights of the APP.

Components such as UrsAl2SideBars Extension, Clock and Webviewer are used.