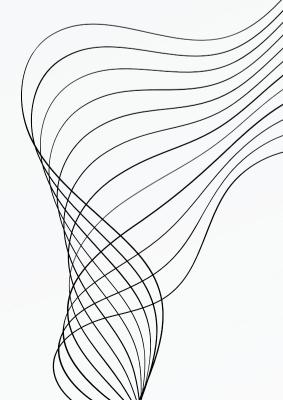
# SMART WASTE **CLASSIFICATION**

**REVOLUTIONIZING WASTE MANAGEMENT WITH AI** 









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# INTRODUCTION



The escalating volume of waste generation and improper disposal practices pose significant challenges to environmental sustainability.



Introducing WasteWise, an Al-powered waste management app leveraging Claude 3 Opus API to revolutionize waste management practices.



## **SMART WASTE CLASSIFICATION**

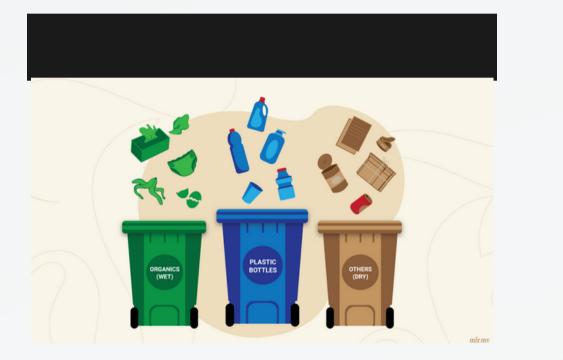
- WasteWise offers users the ability to effortlessly classify waste items simply by taking a picture. This intuitive process simplifies waste sorting and promotes responsible disposal practices.
- Integrated with Claude 3 Opus API for precise classification results using advanced image recognition technology.



Promotes Responsible Disposal

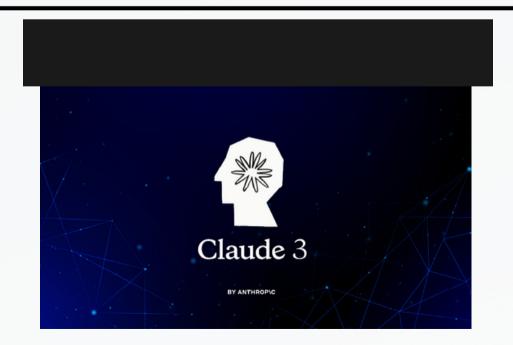
**Reduces** Contamination 2

## PERSONALIZED WASTE REDUCTION INSIGHTS



- sustainable practices.
- WasteWise analyzes user behavior, leveraging Claude 3 Opus API's advanced natural language processing capabilities. By processing user data, the app generates personalized insights that align with the user's waste management goals.

• WasteWise delivers customized recommendations to users, aiding in the reduction of waste generation. These insights are tailored to individual behaviors and preferences, empowering users to adopt



# TECHNICAL ARCHITECTURE

WasteWise's technical architecture encompasses multiple components working effectively to deliver an efficient waste management solution.

> User interacts with the frontend to classify waste items or receive personalized insights.

> > Frontend communicates user requests to the backend server

Backend processes requests, interacts with the Opus API for waste classification and insights generation, and retrieves/stores data in the PostgreSQL database.

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Processed data is sent back to the frontend for display to the user.

## TOOLS USED

### **\***Claude





### FastAPI



## WASTE CLASSIFICATION PROCESS

### **IMAGE CAPTURE**

Users capture a photo of the waste item using the WasteWise app.

### **OPUS API INTEGRATION**

02

The app sends the image to the Claude 3 Opus API for classification.

### **ADVANCED ANALYSIS**

Opus API utilizes advanced image recognition technology to classify the waste item into recyclable, compostable, or general waste categories.



### **INSTANT RESULT**

Users receive instant classification results, enabling them to dispose of waste responsibly.

## **POTENTIAL IMPACT**

WasteWise has the potential to significantly reduce waste generation and promote sustainable practices.



By facilitating proper waste classification and offering personalized insights, WasteWise empowers users to make informed decisions, leading to reduced environmental impact and resource conservation.

Adoption of WasteWise can contribute to cleaner communities, reduced landfill usage, and enhanced recycling rates, fostering a more sustainable future for generations to come.

## FUTURE ENHANCEMENTS



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Future iterations of WasteWise could leverage Internet of Things (IoT) technology to enhance waste monitoring and management capabilities.

With scalable architecture and adaptable features, WasteWise is poised for global expansion, enabling its impact to be felt across diverse communities and regions worldwide.

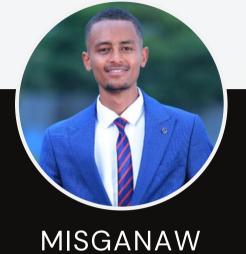


Expansion to Global Markets

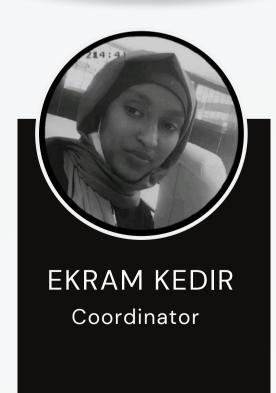
# **OUR TEAM**



ABEL BEKELE Team lead



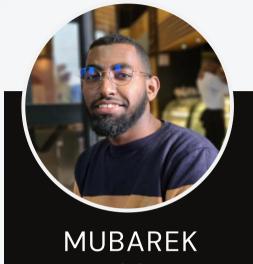
BERIHUN Flutter developer





BIRHAN ANTENEH Backend developer





### HUSSEN Backend developer



### KEROD SISAY Frontend developer

# THANK'S FOR Watching

