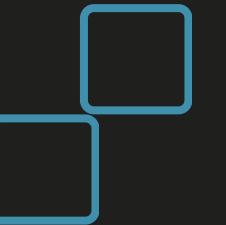




EMOTION DETECTION

AI-Systems Project



Presented By: David Geamanu

CONTENT LIST

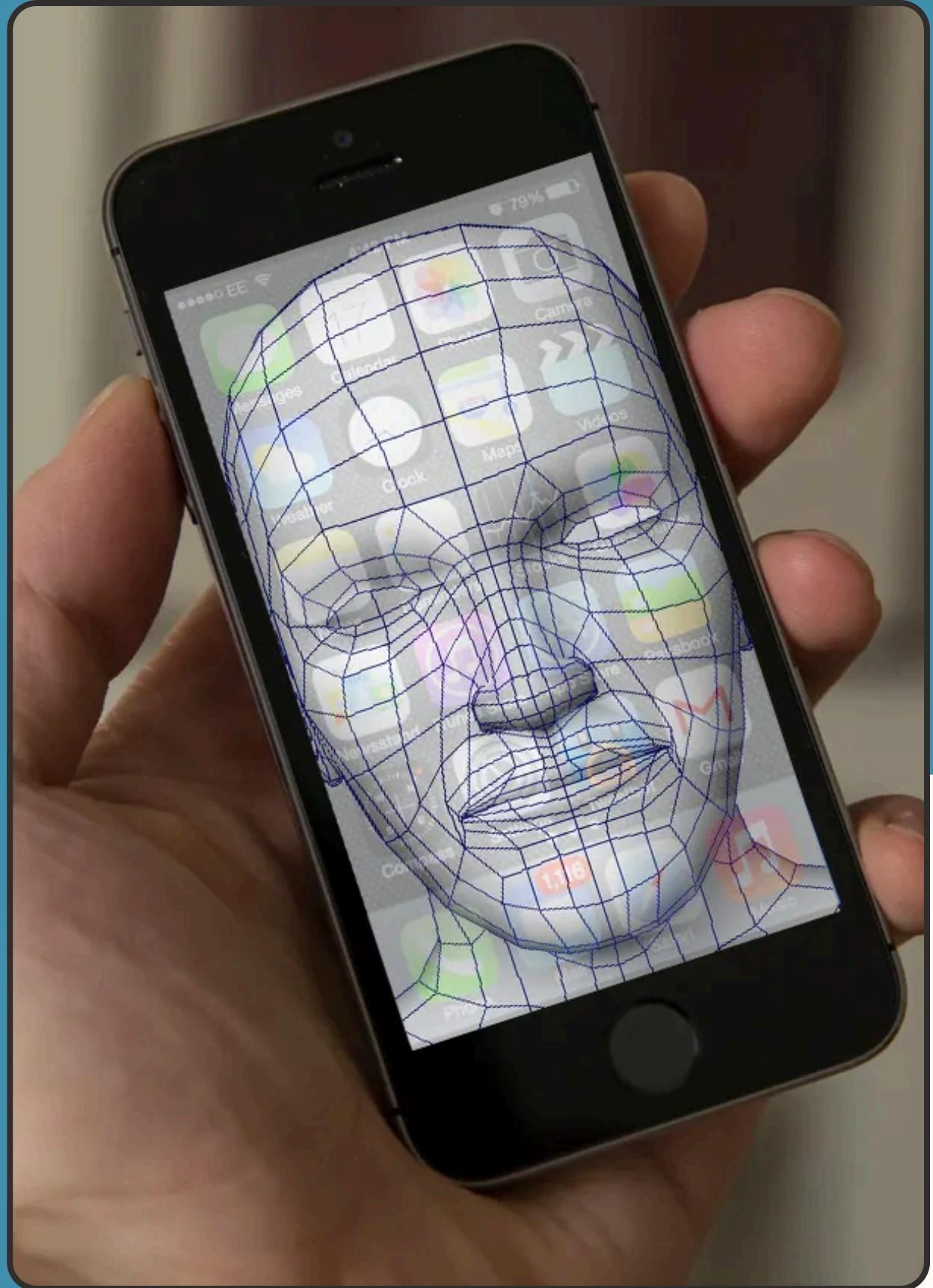
- 1 Why this project?**
- 2 Project Goal**
- 3 Research Focus**
- 4 Datasets & Methods**
- 5 Future Steps**

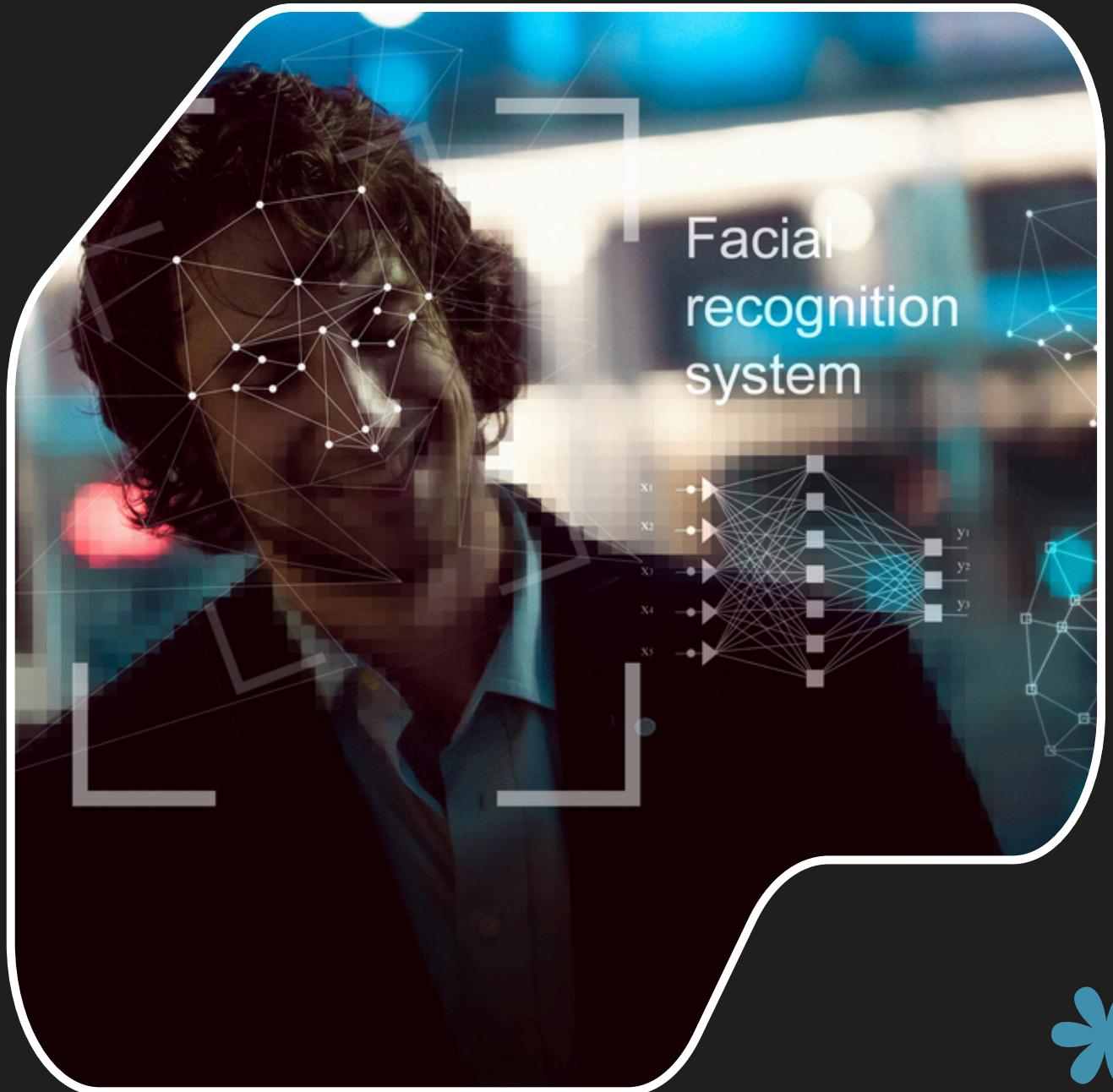


WHY THIS PROJECT?

- Inspired by Apple's Face ID and curiosity about how machines understand faces.
- Technology often misses emotional context.

*





PROJECT GOAL

- Build a system that detects and classifies a person's mood from facial expressions
- Use images, videos, or live camera input
- Explore accuracy and fairness

RESEARCH FOCUS

Why do they call it ‘research’ if you search things up only once?



Main Research Question:

How effectively can computer vision and machine learning detect and classify a person's mood?

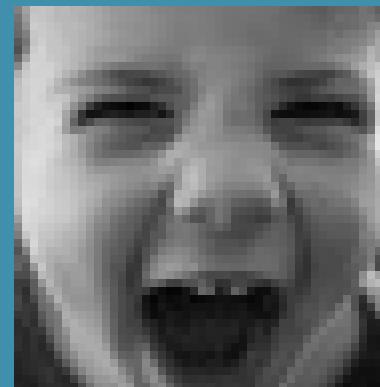
Subquestions:

- How does ethnicity affect model fairness?
- How does real-time input compare to static images?
- How accurate is mood detection across emotions?
- What ethical factors must be considered?

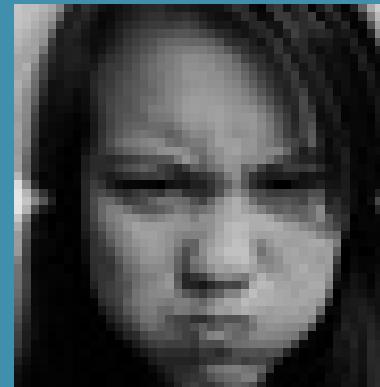
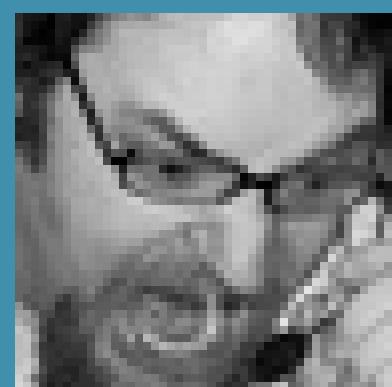


DATASET

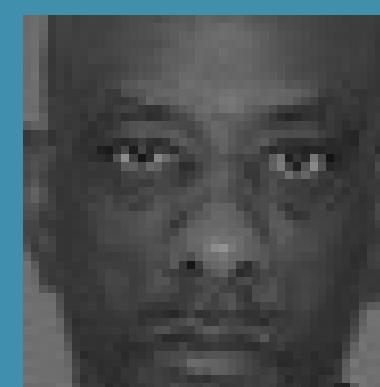
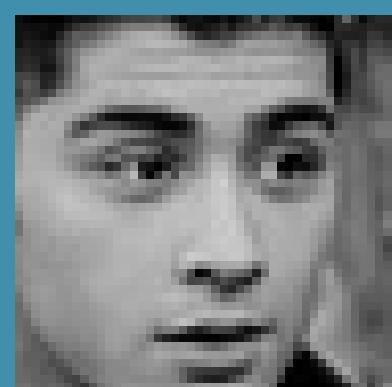
FER2013 Dataset



Happy



Angry



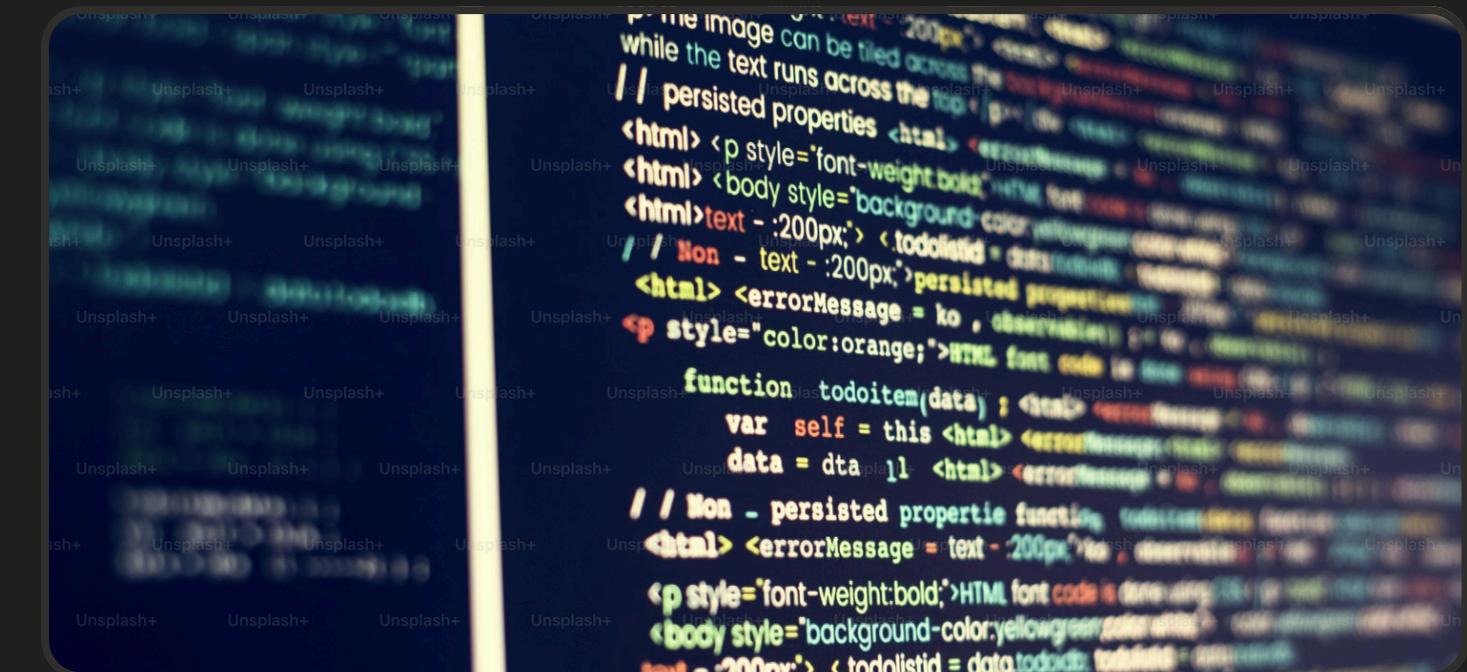
Neutral

- **Analyze diversity (Age, Gender, Ethnicity)**
- **Choose a suitable CNN model for the task**
- **Evaluate results using confusion matrices and fairness checks**



WHATS NEXT?

- *
 - ***Train and Test Emotion Detection Model***
 - ***Evaluate per-class accuracy and fairness***
 - ***Test real-time webcam input***
 - ***Build an user interface to display results***



THANK YOU!

