Facial Recognition Classifier

Adriana Ramirez Franco
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Summary

- **Image classifier** model.
- Human faces vs. non-face objects.
- Smart surveillance, authentication, and monitoring.
- Improves public safety,efficiency, and privacy compliance.

Outline

- Goals
- Data
- Methods
- Results
- Conclusions

Goals

- Create a **reliable model** that supports real-world safety and efficiency.

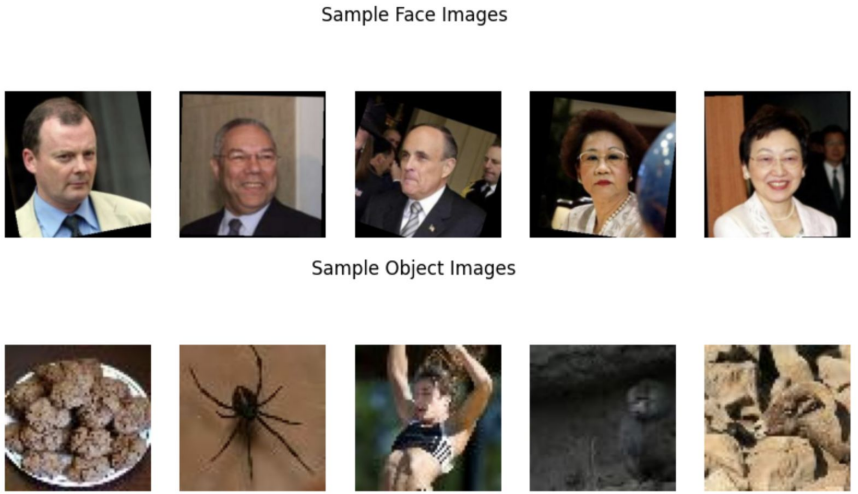
Goals

- Achieve **high accuracy.**
  a. Accuracy: how well the model is identifying both categories accurately.

Data

Two datasets from Kaggle:

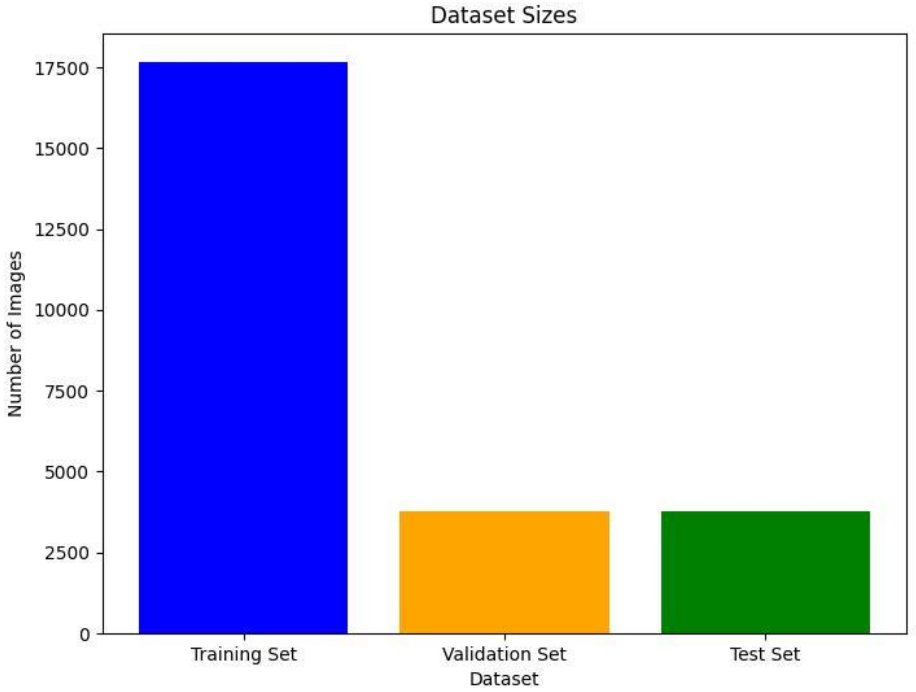
1. **Tiny ImageNet:** 110,000+ images, resized to 64x64 pixels, used for non-face objects.
2. **Labeled Faces in the Wild:** 13,000+ images of human faces.



Methods

- Both classes (Face vs. Non-Face) were **balanced.**

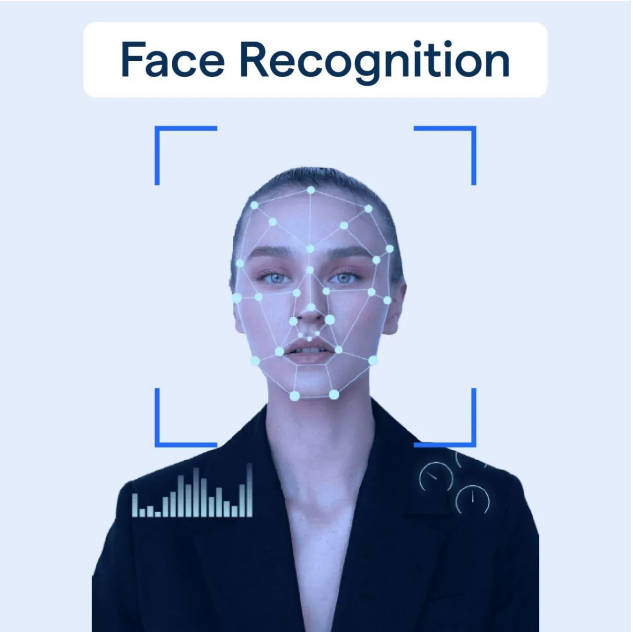
- **Multiple models** were tested to get the highest accuracy.



Results

Model specifically for analyzing images.

- Test **accuracy**: 99.92%.
- High accuracy indicates potential **overfitting**.
- **Image size** discrepancy led to overfitting.



Conclusions

- Final model achieved **99.92% accuracy**.
- Model is **not ready** to be implemententation.
- **Addressing limitations** is key for future success.

Next steps

- Make the data more **consistent**.
- Add **variety**.
- Test with **New Data.**

Thank you!

Email: aramirezfr20@gmail.com
Github: @aramirezfr