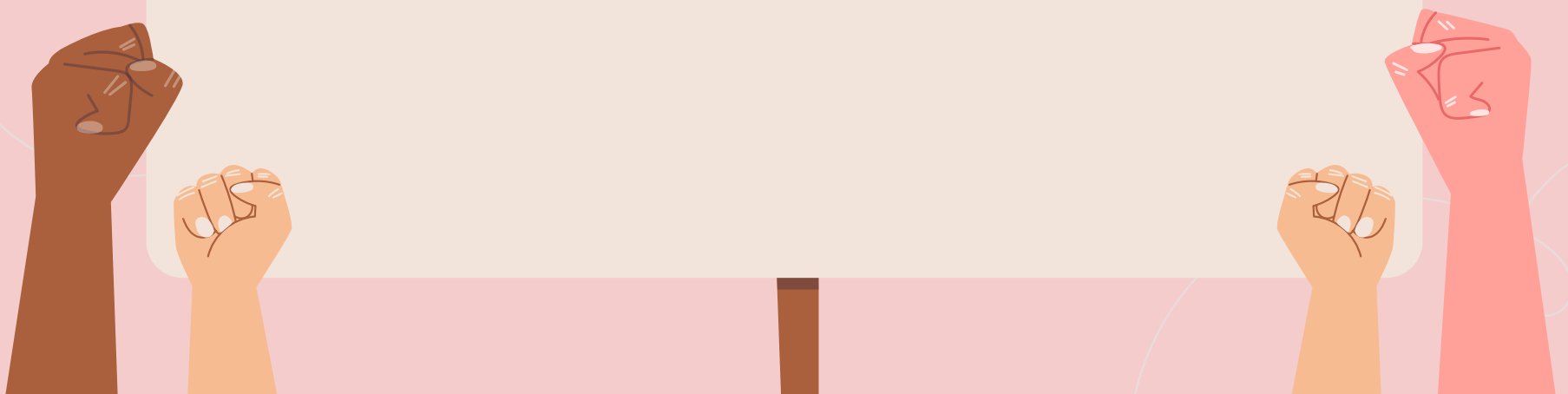


你好！

TransPic

Bridging Images and Languages

こんにちは
は



hello !

こんにちは

The Problem We Aim to Solve

Challenge:

- When you go to a new country, you find something (food/animal) you don't know in your language. How to search the object what is it called? (example: food you don't know)

Goal:

- Develop an intuitive tool to identify objects in images and translate them into the desired language.

Functionality

- **Frontend:** Built with **Streamlit** for simplicity and interactivity.
- **Backend:**
 - Uses **PaliGemma** for object identification.
 - Uses **Gemma 2** for language translation.
- **Other Tools:**
 - **Hugging Face** for model integration.
 - Google Vision API for OCR.
- **Workflow Overview:**
 - Upload image → Detect objects → Translate → Display results.

Technologies

Python

Streamlit

PaliGemma /
Gemma2

Olá !

What We Faced Along the Way

namaste

Challenges:

- Prompt engineering for obtaining accurate output format. (example: output includes unwanted characters and spacing)
- User authentication for Hugging Face (handling tokens securely).
- Balancing accuracy and response time.
- Designing a user-friendly interface



DEMO

Bonjour

Ciao !

A red speech bubble with a white outline, containing the word "EQUALITY" in white, uppercase, sans-serif font. The bubble is positioned in the top-left corner of the slide.An orange speech bubble with a white outline, containing the word "JUSTICE" in white, uppercase, sans-serif font. The bubble is positioned in the top-right corner of the slide.

What's Next?

- Improve design and add support for more languages.
- Develop a mobile app for on-the-go learning. (add take a photo)
- Open-source plans to involve the community.
- Improve inference speed by using techniques such as quantisation or pruning.
- Improve capabilities of PaliGemma detection in more specific use cases by fine-tuning the PaliGemma on specific datasets such as food, plant, or bird names.



**Thank
you**

Bonjour

Ciao !