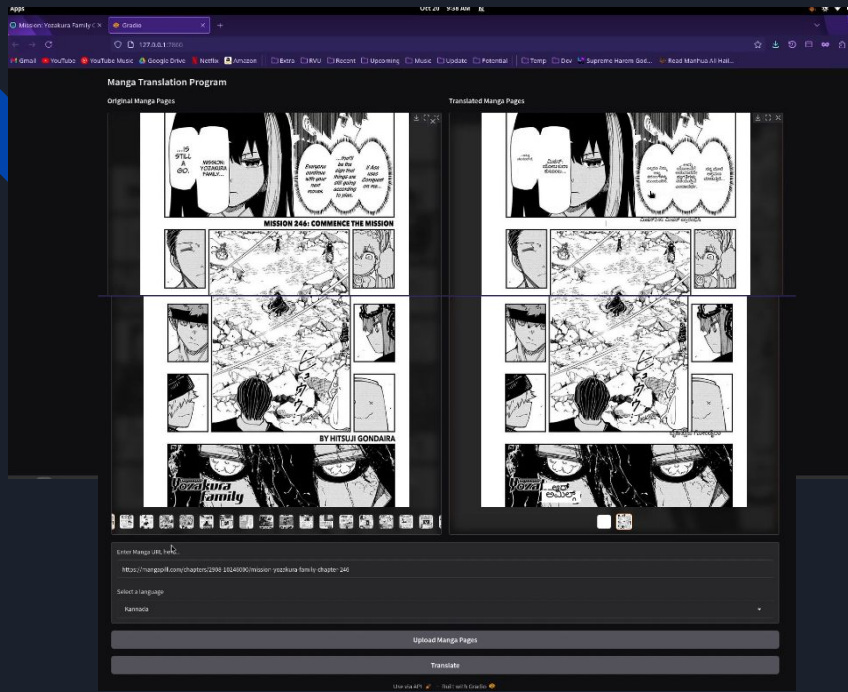


# MangaLipi

Automatic manga translation in regional languages

-Aditya K, Suhas H M, Praful M





# Goal

Manga In Regional Indian Languages -

Most modern manga are not available in Indian Languages, and there are very few people who translate it to a local language.

This tool enables translation of manga from english to the most popular indian local languages like Hindi, Kannada, Bengali, Gujarati etc.

It takes time for the official publishers to translate the manga from one language to another. In the absence of the required translation, you would use our tool - MangaLipi.

How it  
works





Original Image



Paddle OCR outputs bounding boxes for each text segment it finds

<- The segments are separate, and directly translating them does not yield accurate results.

We group text-> segments based on KNN to preserve context and yield accurate translations.



Grouped bounding boxes to preserve context





Removal of original text using bounding box coordinates

----->  
We pass the new text segments (after contextual merging) one by one, for translation, to the llm, and draw it onto <- the masked image



Replacement with translated text



# Techstack

Programming language : Python

OCR Library : PaddleOCR

Webscraping using the requests library

LLM Model used for translation : llama-70b

LLM API Service provider : Groq (for fast queries)

Frontend : Gradio