Poster for Natural Language Processing (202047809)
on
Gujarati News Translator & Summarizer Web App

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Abstract

A lightweight backend service that ingests Gujarati news (URL or raw text), removes boilerplate (e.g., copyright/footer), translates content to English, and produces a concise extractive summary. Built with FastAPI and designed for serverless deployment (e.g., Vercel) without heavy ML dependencies.

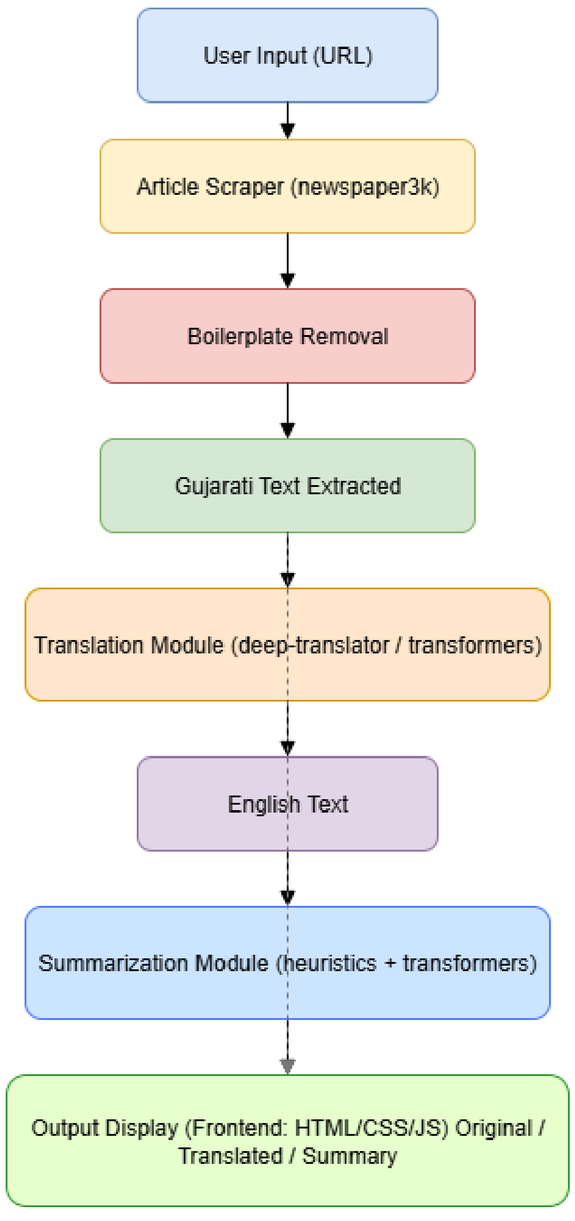
Introduction

Non-Gujarati audiences lack a fast, reliable way to extract Gujarati news articles, remove boilerplate, translate them to English, and obtain concise summaries. This project provides a scalable and lightweight solution suitable for serverless deployment on minimal resources.

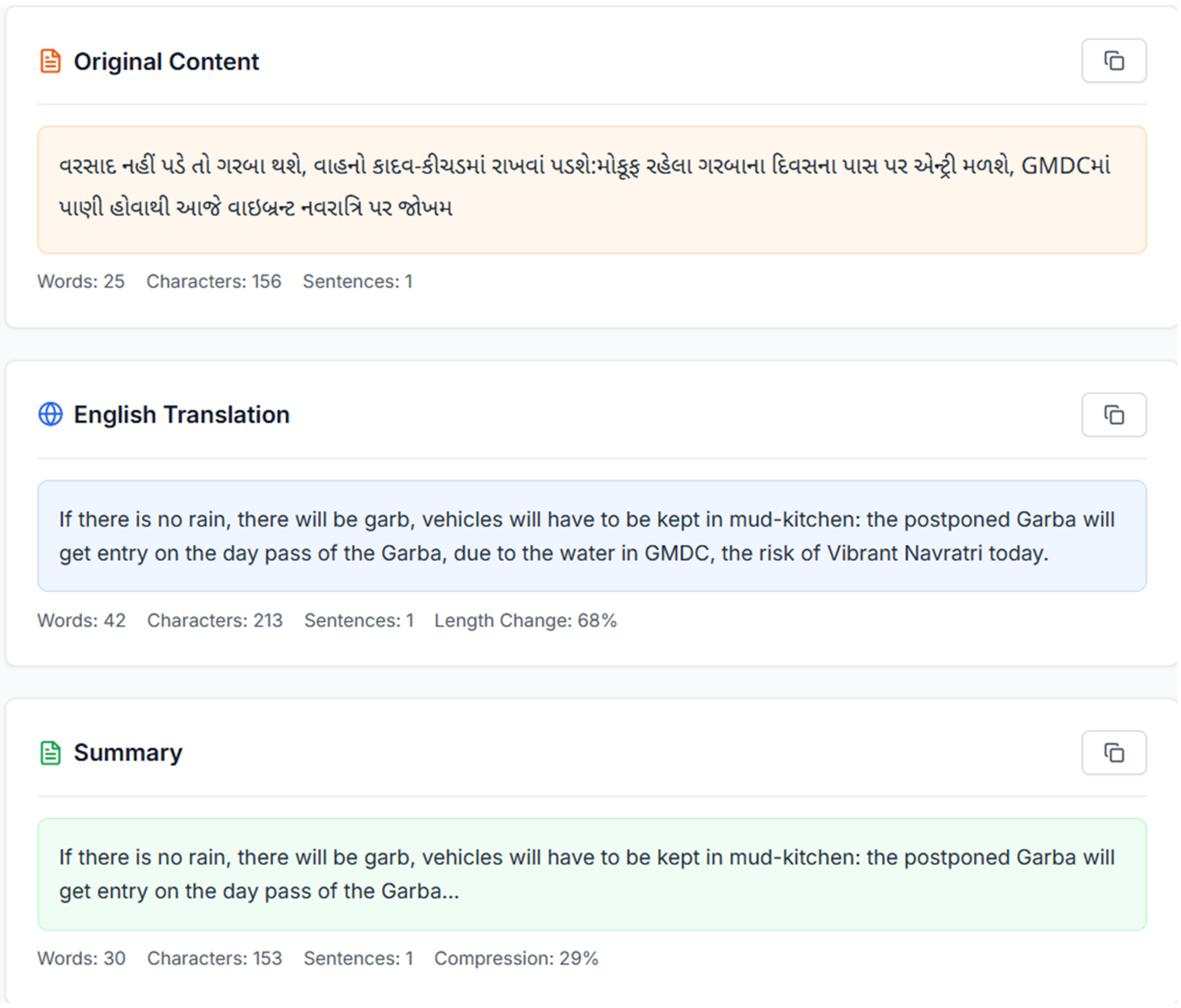
Tech Stack

Frontend: React
Backend: FastAPI, Flask
NLP & ML: transformers, torch, newspaper3k, deep-translator.
Deployment: Vercel

System Architecture



Result



Conclusion & Applications

The project delivers a lightweight, serverless-ready system for Gujarati news translation and summarization, enabling non-Gujarati audiences to quickly access regional news. By integrating article scraping, boilerplate removal, translation, and summarization into a single pipeline, it ensures efficiency, low dependency overhead, and real-world usability.

Applications:

Cross-lingual News Monitoring: Track Gujarati news in English for journalists and organizations.

Media Analytics & Research: Provide quick digests for media houses, researchers, and policymakers.

News Aggregation & Alerts: Integrate into real-time pipelines for concise English updates.

Educational & Accessibility Use: Support students, non-native speakers, and global stakeholders in understanding Gujarati content.

References

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