



CosmoPedia Architecture

Unified Space Knowledge Platform - Technical Overview



Data Sources & Integration



NASA APIs

Space Images
Mission Data



Space Agencies

ESA, NASA
Global Organizations



Multiple Open Sources

Research Papers
Historical Records



JSON Data

Structured Datasets
Curated Content



Web Interface

HTML5, CSS3
Bootstrap, JavaScript



Responsive Design

Mobile Optimized
Space Theme



Documentation

Interactive Modal
User Guides



Flask Server

Python 3.11
Web Framework



RESTful APIs

Open Endpoints
JSON Responses



Data Processing

JSON Parsing
Data Aggregation



AI & Vector Search Engine



Mistral LLM

Large Language Model
Natural Language
Processing



FAISS Vector DB

Semantic Search
Knowledge Retrieval



AI Chat

Contextual Responses
Space Knowledge Base



Swagger API

Interactive Docs
Developer Tools



Cloud Deployment

DigitalOcean
Heroku APIs



Open Access

Free APIs
CORS Enabled



Technology Stack



Python Flask

Backend Framework



Mistral AI

Language Model



FAISS

Vector Search



System Features & Capabilities



Data Categories

Space Terminologies

Space Agencies

Planets

Rockets

Astronauts

Telescopes

Notable People

Space Museums

NASA Images



AI Features

Mistral LLM

Vector Search

Semantic Queries

Context Awareness

Knowledge Base

FAISS Index



API & Integration

RESTful APIs

Swagger Docs

JSON Format

CORS Enabled

Open Access

Rate Limiting



Frontend & UX

Responsive Design

Space Theme

Interactive Modal

Bootstrap UI

Mobile Optimized

Real-time Stats