



Introducing:
AI SEARCH ENGINE

Technical Documentation

Multilingual, context-aware enterprise search that understands query intent and surfaces accurate answers across your organization's knowledge base

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Overview

About the Solution

The AI Search Engine is an advanced Retrieval-Augmented Generation (RAG) platform designed to solve the critical challenge of information discovery in large-scale enterprise and academic environments.

Built on GPT-4 and Sentence Transformers, the system goes beyond traditional keyword search by understanding the true intent behind every query. It delivers contextually accurate, citation-backed answers drawn from across an organization's entire knowledge base — instantly and at scale



Business Problem / Challenges

In enterprise and academic environments, a recurring challenge arises in finding and accessing the right information quickly:

Keyword based search fails to capture semantic intent and contextual relevance in large scale repositories

Content exists in diverse formats-text, tables, images, PDFs -requiring multimodal AI-driven parsing

Solution must handle tens of millions of documents with low latency and optimized cost

Enterprise-grade integration, security, and monitoring required for production deployment.



Key Capabilities

RAG-based retrieval
using sentence
transformers and
TF-IDF filtering

GPT-4 powered
summaries with
contextual
understanding and
citations

Multi-turn
conversational
context awareness
on specific
documents

Auto chunking,
embedding
generation, and
vector storage

Cross-encoder
based reranking for
improved result
quality

Persistent vector
storage with efficient
similarity search



Value Proposition

01

Accuracy: 95%+
detection
accuracy with
standard input
quality.

02

Loss Prevention:
Minimize
untraceable
inventory
discrepancies.

03

Efficiency: Reduce
manual counting
efforts by 80–90%.

04

Scalability:
Deployable
across multiple
sites with
standardized
setup.

05

Transparency:
Visual audit trail
enhances
accountability and
trust.

Scan To Try:



Primary Tools & Technologies

01

AI Models

GPT-4 and Sentence Transformers for semantic understanding and embedding generation.

02

Backend APIs

Flask API with TF-IDF filtering and Cross-Encoder reranking pipeline

03

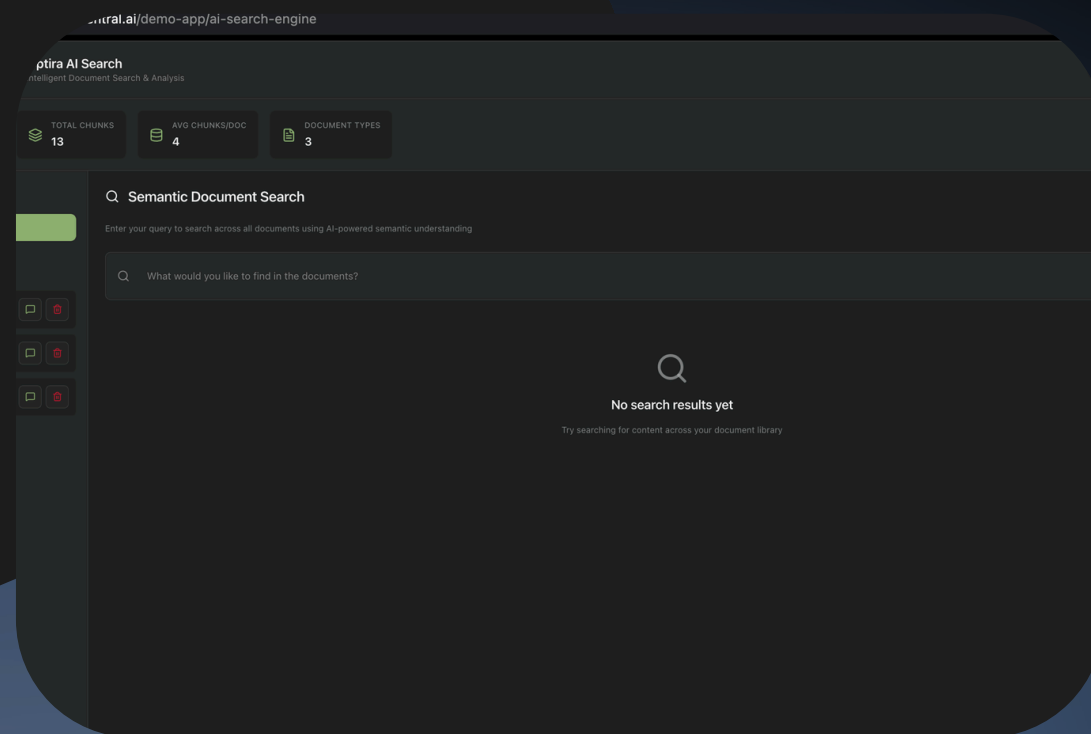
Database

ChromaDB vector database for persistent storage and similarity search.

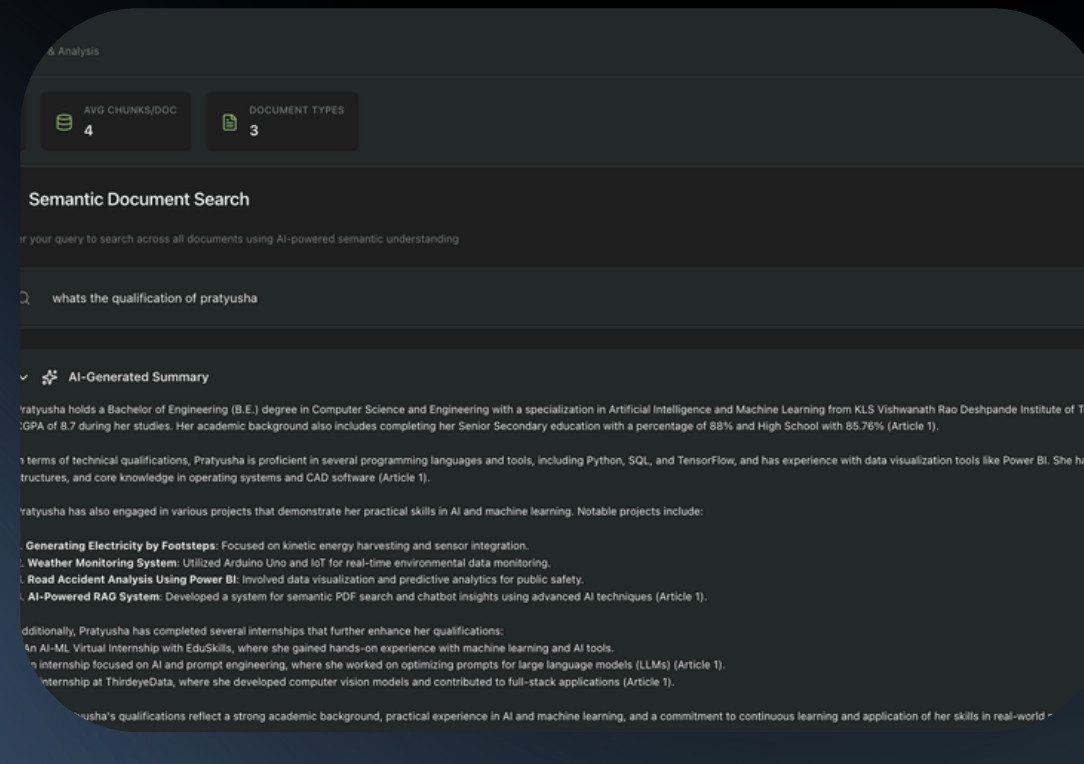


Solution Glimpses

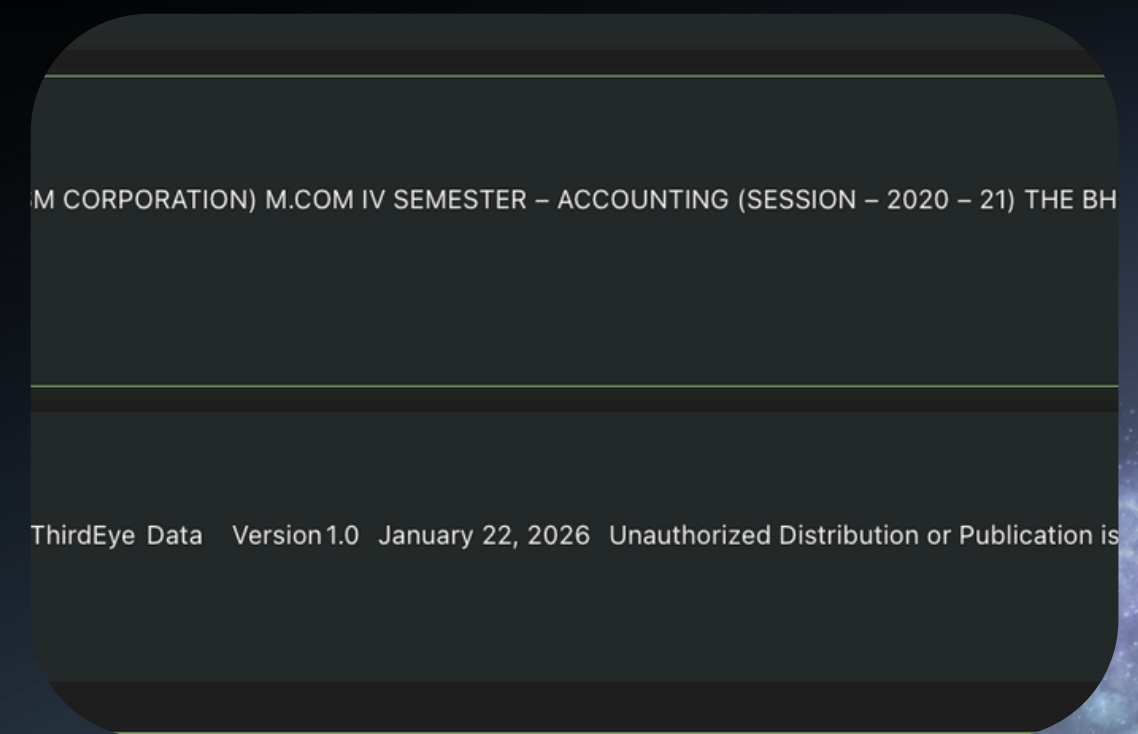
Multi-Source Upload



Document Search



Information Retrieval



Watch the full video on [Vimeo.com](https://vimeo.com) or scan here to watch:



Request a Demo

If you find this solution relevant to your use case, please feel free to try this prototype or request a custom demo.



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