

ContractIQ

An AI-powered contract analyzer.

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Problem Statement

Contracts are lengthy, complex, and often hard to understand.

Manual clause review is time-consuming, prone to errors, and costly.

Organizations need faster, intelligent ways to analyze legal documents.

Solution Approach

- Introducing ContractIQ - An AI-powered contract analyzer.
- → Upload any legal document.
- → Automatically extract and embed clauses.
- → Store them in a vector database.
- → Query with natural language and get relevant answers instantly.

How It Works

- 1. Upload contract document (.pdf/.docx).
- 2. Extract and split into clauses using Python.
- 3. Generate embeddings via Novita AI.
- 4. Store vectors in Zilliz Cloud (Milvus).
- 5. Query user input, search similar clauses.
- 6. Use chat model to summarize or answer questions.

How It Works

1. User uploads a contract via the web interface.
2. Backend extracts clauses and generates embeddings using Novita AI.
3. Embeddings stored in Zilliz (Milvus) for vector search.
4. User's query is embedded and matched against stored clauses.
5. Best matches are used to generate a response using an LLM.

Tools & Technologies Used

- Trae AI: Full-stack code generation & CI setup.
- Novita AI: Embeddings & Chat (OpenAI-compatible API).
- Zilliz (Milvus): Vector DB for fast semantic search.
- FastAPI: Backend server for file upload & querying.
- Streamlit: Responsive chat-based frontend.

Real-World Impact

- Makes legal contract understanding accessible to everyone.
- Saves time and cost for startups & businesses.
- Reduces risk of missing critical clauses or legal risks.
- Ideal for HR, procurement, compliance, and legal teams.

AI Models Used

- Embedding Model: `qwen/qwen3-embedding-8b` (Novita AI)
- Chat Model: `deepseek/deepseek-v3-0324` (Novita AI)
- Vector Search: Zilliz Milvus with IVF_FLAT + L2 Distance
- All hosted securely with API Key authentication.