Iris - AI Vision Assistant

Iris is an advanced AI-powered chat application designed to help blind and visually impaired students interact with documents through natural language. The application provides document upload, question-answering, summarization, and advanced AI agent processing capabilities.

Overview

Iris is a Next.js-based web application that serves as a frontend for a RAG (Retrieval-Augmented Generation) backend system. It allows users to:

- Upload documents (PDF, TXT, DOC, DOCX, MD, JSON)

- Ask questions about uploaded documents

- Get automatic document summaries

- Process documents with a CPA (Content Processing Agent)

- Maintain conversation history

- Modern accessible UI with dark mode

Features

1. Document Upload

- Drag-and-drop interface

- Multiple formats

- JSON conversion

- Real-time feedback

2. Chat Interface

- Real-time Q&A;

- History with timestamps

- Auto-scrolling

- Loading indicators

3. Quick Actions

- Summaries

- CPA Agent

4. Responsive Design

5. Modern UI/UX

Technology Stack

Next.js, React, TypeScript, TailwindCSS, Radix UI, Framer Motion, GSAP, Zod, RHF, Lucide Icons, and more.

Project Structure

(app/, components/, hooks/, lib/, public/, styles/, configs)

Setup Instructions

- Install Node.js

- npm install

- Create .env.local

- npm run dev

Usage

Upload docs, ask questions, run summary or CPA agent.

API Integration

Via Next.js API rewrites to backend RAG server.

Components Overview

Navbar, ChatSidebar, Chat Interface, Upload Page, etc.

Styling & Design

Dark mode, gradients, animations, accessibility features.

Configuration Files

next.config.mjs, tsconfig.json, tailwind config, package.json.

Development

npm run dev, build, lint.

Known Issues

Scroll and CORS fixes; JSON upload handled.

License

Private project.

Contributors

Developed for accessibility and education.