AI-Powered Contract Proposal Bot for Clarity Innovations

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Introduction

As a Software Developer Intern at Clarity Innovations, I worked on a team of five to develop an AI-powered contract proposal bot. The project was designed to streamline the identification and sorting of relevant contract opportunities using AI. My team and I met daily online and worked in the Columbia office 1-2 times a week to collaborate on this project.

Activities:

- Completed a "sprint" phase to learn PostgresSQL, Weaviate, and Llama 2 AI.
- Developed an AI-powered contract proposal bot with a 5-person team, using APIs and databases.
- Worked 9-5, collaborating online with mentors and the team, and presented the final project.

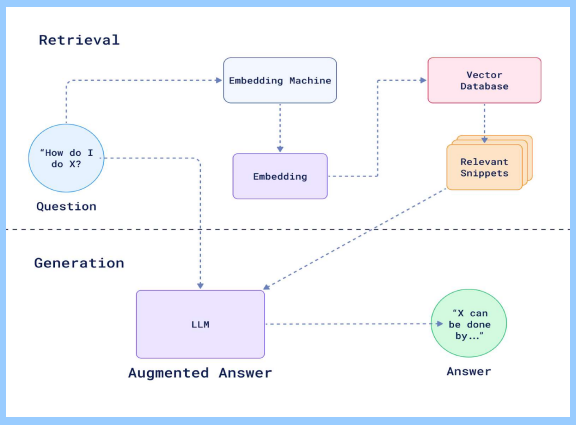

Image from https://qdrant.tech/articles/what-is-rag-in-ai/

Impact:

The AI-powered contract proposal bot significantly reduced the time spent searching for relevant opportunities. Its scalable structure, using RAG, databases, and a chatbot, can be adapted for other applications, allowing Clarity Innovations to streamline contract processing and potentially expand AI use in other sectors. Working with these technologies introduced me to new tools and solidified my interest in pursuing a career in AI and software development.

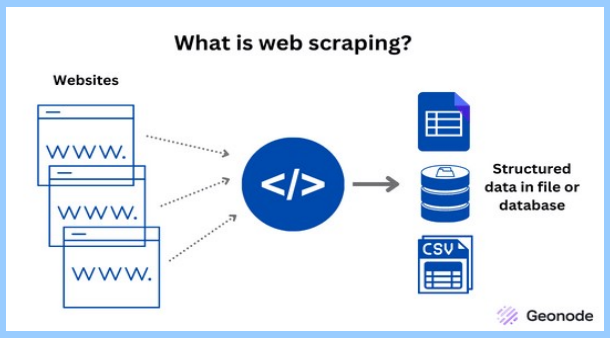

Image from https://geonode.com/blog/what-is-web-scraping

Site Information:

Clarity Innovations

6940 Columbia Gateway Dr #110, Columbia, MD 21046

Mentors: Ben Welch, Mike Lanciano, Matt Conway

Clarity Innovations develops AI and technology solutions to optimize business operations. The company focuses on improving efficiency in government contracting, particularly for national security sectors.

Discussion:

The AI-powered contract proposal bot successfully streamlined contract searches, reducing manual effort and improving efficiency. This project demonstrated the potential of AI to automate tasks and enhance productivity. Future improvements could focus on integrating more data sources, enhancing natural language processing, and exploring applications in other industries.

Issues Confronting Site:

Clarity Innovations faced the challenge of efficiently identifying and sorting relevant government contracting opportunities. The manual process of searching through numerous postings was time-consuming, leading to delays in finding suitable contracts. The project aimed to address this issue by developing an AI-powered bot to automate and streamline the contract search process, improving efficiency and relevance.

Future Work:

The project could be expanded to integrate more data sources, improving the AI's ability to filter and recommend relevant contracts. Additionally, the AI-powered bot structure can be adapted to other industries, such as healthcare or finance, to streamline data processing and decision-making. Future work could also focus on improving the chatbot's natural language capabilities to provide more accurate and efficient user interactions.

Acknowledgments:

I would like to sincerely thank my site mentors at Clarity Innovations for their guidance and support throughout the project, as well as Drs. Holtz and Merck for their invaluable assistance and mentorship.