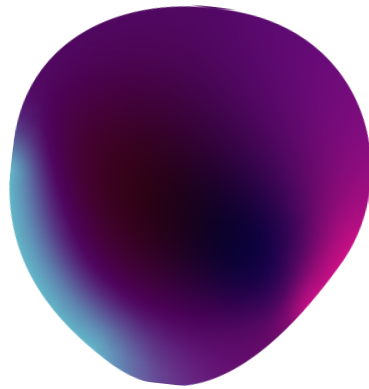
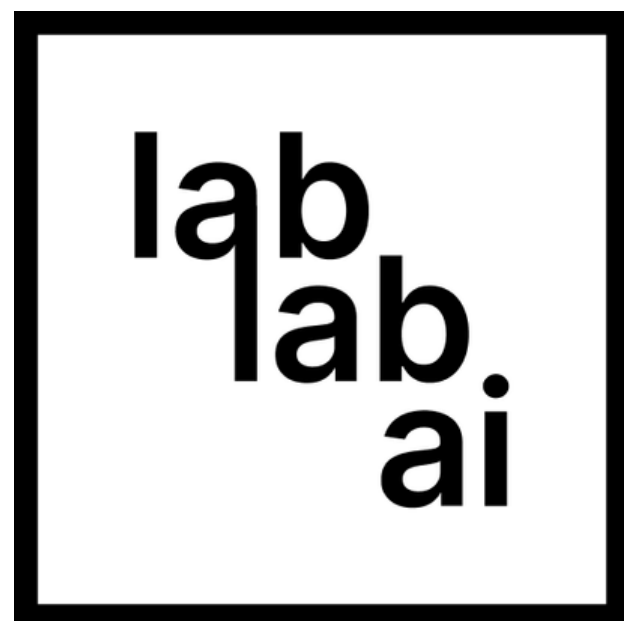


Plug into AI with AI21



RepoChat

Conversational AI for GitHub Repositories



AI21 labs

Problem Statement

Understanding and exploring large GitHub repositories can be challenging for newcomers and non-experienced users.

Lack of familiarity with the codebase, complex structures, and extensive documentation makes it difficult to gain insights quickly.

Introducing RepoChat, an innovative solution that bridges the gap between users and GitHub repositories by leveraging the power of conversational AI. Let's explore how RepoChat addresses these challenges and empowers users to navigate and understand repositories more effectively.

Solution Overview (Part 1)

1. User Authentication and Setup:

- a. OpenAI API token for computing embeddings.
- b. Activeloop token and organization name for storing in Deeplake vector database.
- c. AI21 Labs API token to leverage the power of the Large language model.

2. Repository Processing:

- a. The user inputs the GitHub repository
- b. The repository is cloned and split into manageable chunks for efficient processing.

3. Repository Data Loading:

- a. Using the OpenAI embeddings, the repository data is loaded into the Deeplake vector database.

Solution Overview (Part 2)

4. Ready for Queries:

- a. With the repository data loaded, RepoChat is ready to answer user queries.
- b. Users can ask questions or seek insights related to the repository.

5. Query Processing:

- a. When a user query is received, RepoChat retrieves relevant information from the Deeplake vector database.
- b. The retrieved data is passed to the AI21 Labs API, which generates accurate responses based on the query.

6. Conversation Context:

- a. RepoChat retains the conversation history to maintain context and generate more accurate responses.

User Experience

User-friendly interface

Conversational chat format

Context retention

Hassle-free API token management
using Streamlit session states

Use Cases: Open-source Contributions

- RepoChat helps newcomers understand and contribute to open-source projects.
- Provides insights and summaries of overwhelming industry-level repositories.
- Guides users in identifying areas for contribution.
- Facilitates learning by example through code exploration and explanations.

Discord Bot Integration

RepoChat now integrates with Discord through a dedicated bot version.

Benefits:

- Helps newcomers contribute to open-source projects in Discord communities.
- Facilitates learning and collaboration within developer communities.
- Offers quick insights and summaries of repositories directly in Discord channels.



Conclusion

- Summarizes GitHub repositories for a quick overview.
- Provides insights and answers questions in a conversational manner.
- Enables newcomers to contribute to open-source projects with guidance.
- Facilitates learning and exploration of complex codebases.
- Integrates seamlessly with Discord, offering easy access and fostering collaboration.



Thank You!

For Further Inquiries or Collaboration

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