Build Your CustomGPT

Reetika's Paper Interpreter

CustomGPT Project

1. Use Case Selection

The chosen use case for this project is **Reetika's Paper Interpreter**. This CustomGPT is designed to assist users in parsing academic PDFs by:

• Extracting summaries, insights, tables, and figures.

• Providing advanced outputs, such as slide decks, research gaps, and LaTeX equations.

• Allowing users to refine and customize results based on their preferences.

Reetika's Paper Interpreter is tailored for academic users, enabling them to decode complex research papers with ease while maintaining clarity, professionalism, and accuracy.

2. Team Plan

Team Members:

This project is being completed by a **solo team** (Reetika).

Roles and Responsibilities:

• **Prompt Designer**: Develops prompts to guide user interaction and ensure accurate outputs.

• **Workflow Designer**: Maps the logical user interaction flow for a seamless experience.

• **Tester**: Tests the functionality of the prompts and workflows to refine outputs.

• **Documenter**: Compiles all elements into a structured and professional submission.

Timeline:

The project will follow these milestones:

1. **Week 1**: Design prompts for input collection, core outputs, and advanced features.

2. **Week 2**: Map workflows and test CustomGPT functionality.

3. **Week 3**: Refine outputs and finalize the implementation for ChatGPT Pro.

3. Prompt System Design

The prompts are categorized into input collection, core outputs, advanced features, refinements, and error handling.

3.1 Input Collection

1. **Welcome and File Upload**:

"Welcome to Reetika's Paper Interpreter! Please upload your academic PDF file to get started. Make sure it's text-based or a high-quality scan."

2. **Output Type Selection**:

"What type of output would you like? Choose one or more:

a) Summary (short or detailed)

b) Key insights and findings

c) Extracted tables, figures, or equations

d) Presentation slides

e) Research gaps or potential future work."

3. **Focus Area Selection**:

"Do you want to focus on specific sections of the paper? Options include: Abstract, Introduction, Methodology, Results, Discussion, or Entire Paper."

4. **Customization Preferences**:

"How would you like the output formatted? Options include:

a) Bullet points

b) Narrative style

c) Tabular summaries."

3.2 Core Outputs

5. **Generate Summaries**:

"Would you like a:

a) Short summary (~250 words)?

b) Detailed overview (~500–1000 words)?"

6. **Extract Tables and Figures**:

"Would you like to extract:

a) Tables only

b) Figures only

c) Both tables and figures?"

7. **Extract Equations**:

"Would you like equations converted into:

a) LaTeX format

b) Plain text?"

3.3 Advanced Features

8. **Generate Presentation Slides**:

"Would you like to create a slide deck? Let me know your preferences for:

a) Slide count

b) Content focus (e.g., Introduction, Key Findings)."

9. **Highlight Research Gaps**:

"Here are potential research gaps based on the paper. Would you like to explore any specific gaps in more detail?"

10. **Comparative Analysis**:

"Would you like to compare this paper with another? Upload the second PDF to get started."

3.4 Refinements and Feedback

11. **Refinement Options**:

“Here’s your output! Would you like to:

a) Refine this further

b) Focus on a different section

c) Add additional features?”

12. **Feedback Request**:

“Was this output helpful? Let me know if you’d like any adjustments or additional insights!”

3.5 Export and Delivery

13. **Export Options**:

“Your output is ready! How would you like to save it? Options include:

a) Editable document (Word or Google Docs)

b) Presentation file (.PPTX)

c) PDF summary

d) Markdown file.”

14. **Post-Export Assistance**:

“Would you like any additional features, such as speaker notes for presentations or annotated visuals?”

3.6 Error Handling

15. **Parsing Issues**:

“I couldn’t parse the document. Please ensure it is a text-based PDF or a clear scan. Would you like to try again?”

16. **Clarification Requests**:

“I need more details to proceed. Could you clarify your preferences or focus area?”

4. Workflow Design

Logical Flow:

1. **Input Collection**:

• User uploads an academic PDF.

• The system parses the file and identifies sections (Abstract, Methodology, Results, etc.).

• User selects the desired output type (e.g., summary, slides, visual aids).

2. **Output Generation**:

• The system generates the requested content based on user preferences.

3. **Refinements**:

• Users can refine outputs by focusing on specific sections, adjusting tone, or adding advanced features.

4. **Advanced Features**:

• Options for slide decks, LaTeX equations, and research gap identification are available.

5. **Export and Delivery**:

• Outputs are saved in preferred formats (e.g., Word, PDF, PowerPoint).

5. Advanced Features

Reetika's Paper Interpreter includes:

• **Presentation Slide Decks**: Automatically generate slides with key points and visuals.

• **LaTeX Conversion**: Convert equations into LaTeX for academic use.

• **Research Gap Analysis**: Highlight areas for further exploration.

• **Comparative Summaries**: Analyze and compare multiple papers.

6. Implementation

Reetika's Paper Interpreter will be implemented using **ChatGPT Pro**, leveraging its advanced capabilities to:

• Parse and process academic PDFs.

• Generate user-friendly outputs with customization options.

- Seamlessly handle advanced features for researchers and students.