



# Enhancing Financial Report Search and Narrative Generation with Generative AI

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## Problem Statement

Financial Professional

Labor Intensive, Repetitive

Searching  
Specifics in  
the Document

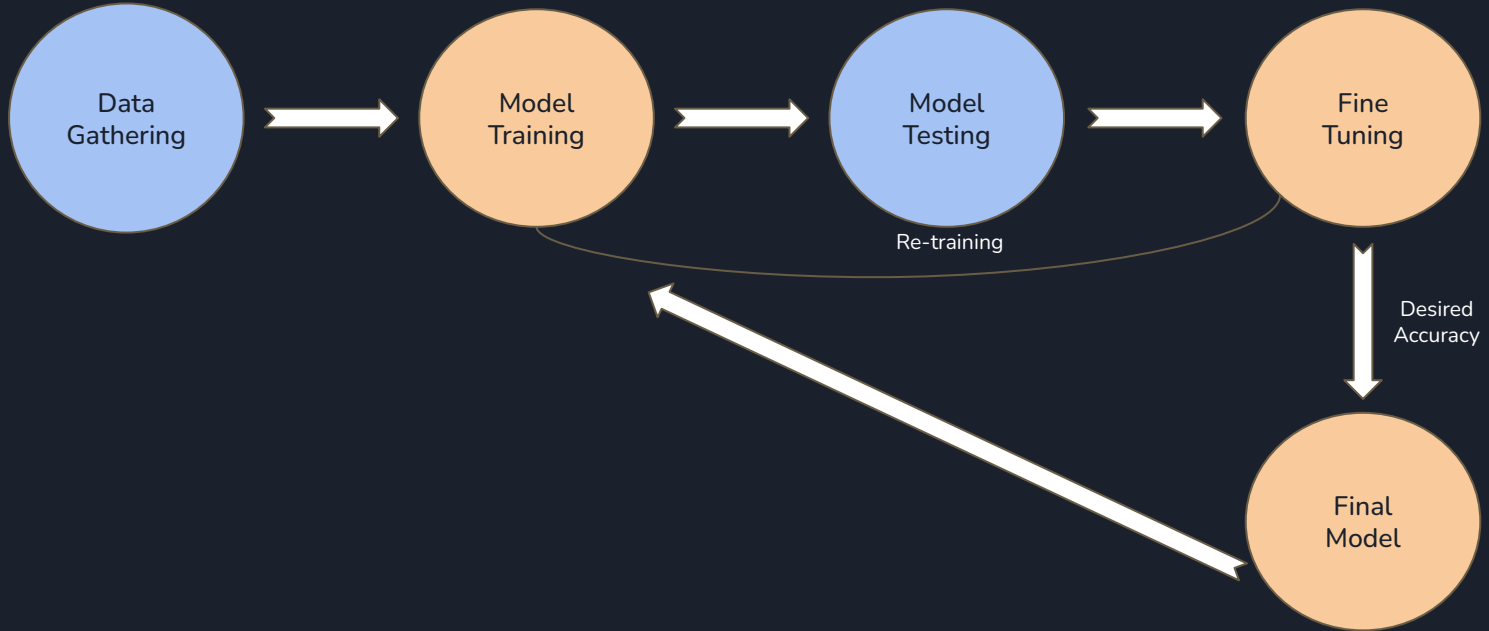
Generating  
Summary for  
Long  
Documents

Financial Documents

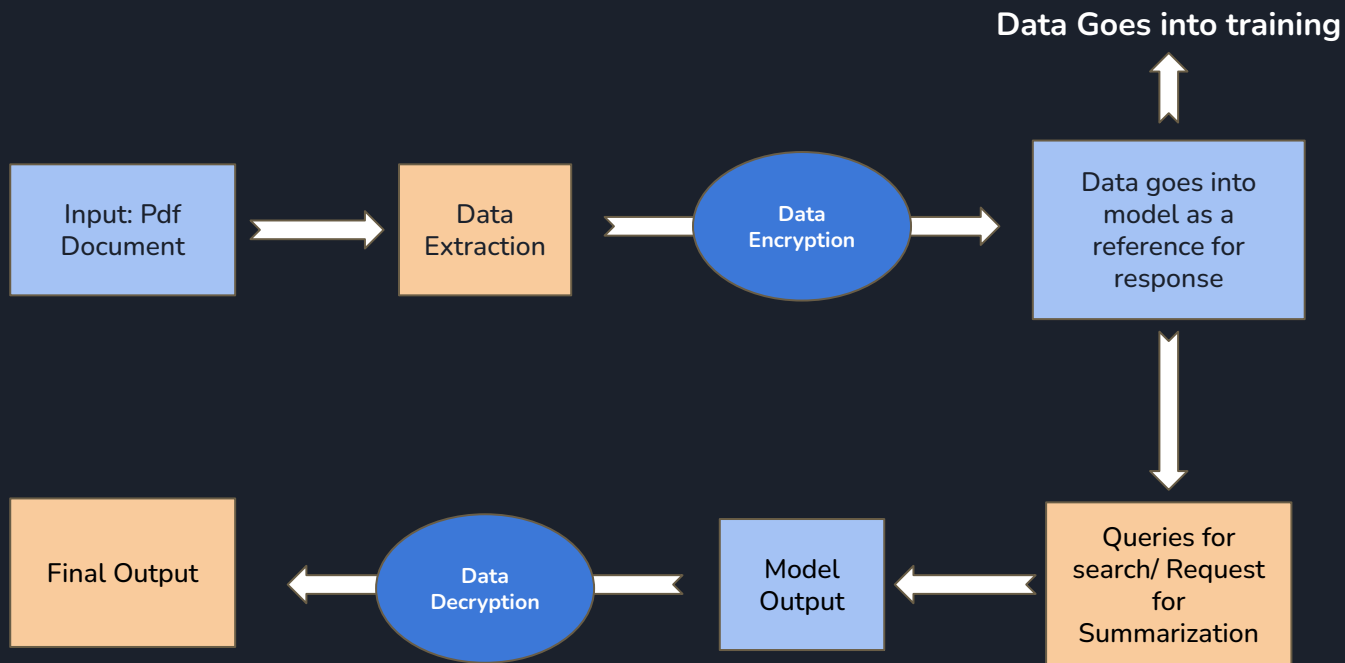
## Key Points of Solution

- A Generative Artificial Intelligent Model which can give prompt based on user queries to establish and interaction between a specific document and end user.
- Interactive User Interface which gives user an ease to deal with any day to day work queries. Along with the search engine, this UI can have presets for Narrative Generation as well which will give them ability to narrow down the document to their choice of length.
- Security: Here we propose a data encryption level between models and stored data to create a level of security for personal data in any document.

## Proposed Architecture



## User Flow





## User Interface

For UI experience, we employed ChainLit library as it provides seamless integration of LLM model with ChatGPT like interface.

# Chainlit/chainlit

Build Python LLM apps in minutes ⚡



👤 4  
Contributors

📦 37  
Used by

★ 2k  
Stars

🍴 130  
Forks



Why we love ChainLit for this Project?

1. Easy Integration
2. Features at our disposal
3. Better User Experience



## Live Demo - 1

**File Name:** 2009 Outstanding AFCPE® Conference Paper

**File Type:** Research Paper

**File Format:** PDF

### Qualitative question

who are the main authors of this paper?

### Table based question

what are the NEFE Sample % of all race/ethnicity?

### Narrative question

summarize the methodology.



## Live Demo - 2

**File Name:** Capgemini integrated Annual Report 2022

**File Type:** Financial Report (k-10)   **File Format:** PDF

### Quantitative questions

what is the average age of employees?  
How much is the organic free cash flow?

### Graph based question

revenue growth by country

### Qualitative questions

what are the seven values?

### Off guard questions

Tallest building in the world





## Future Prospects

- Implementation on Data Privacy and Security (As proposed in Solution architecture)
- Improvement of Graphical Data Identification and Representation
- Implement Reinforcement Learning based on User Response
  - Possible User Response : From 1 - 5 where, 1 being unsatisfied and 5 being Satisfied with desired output.



Q/A Session