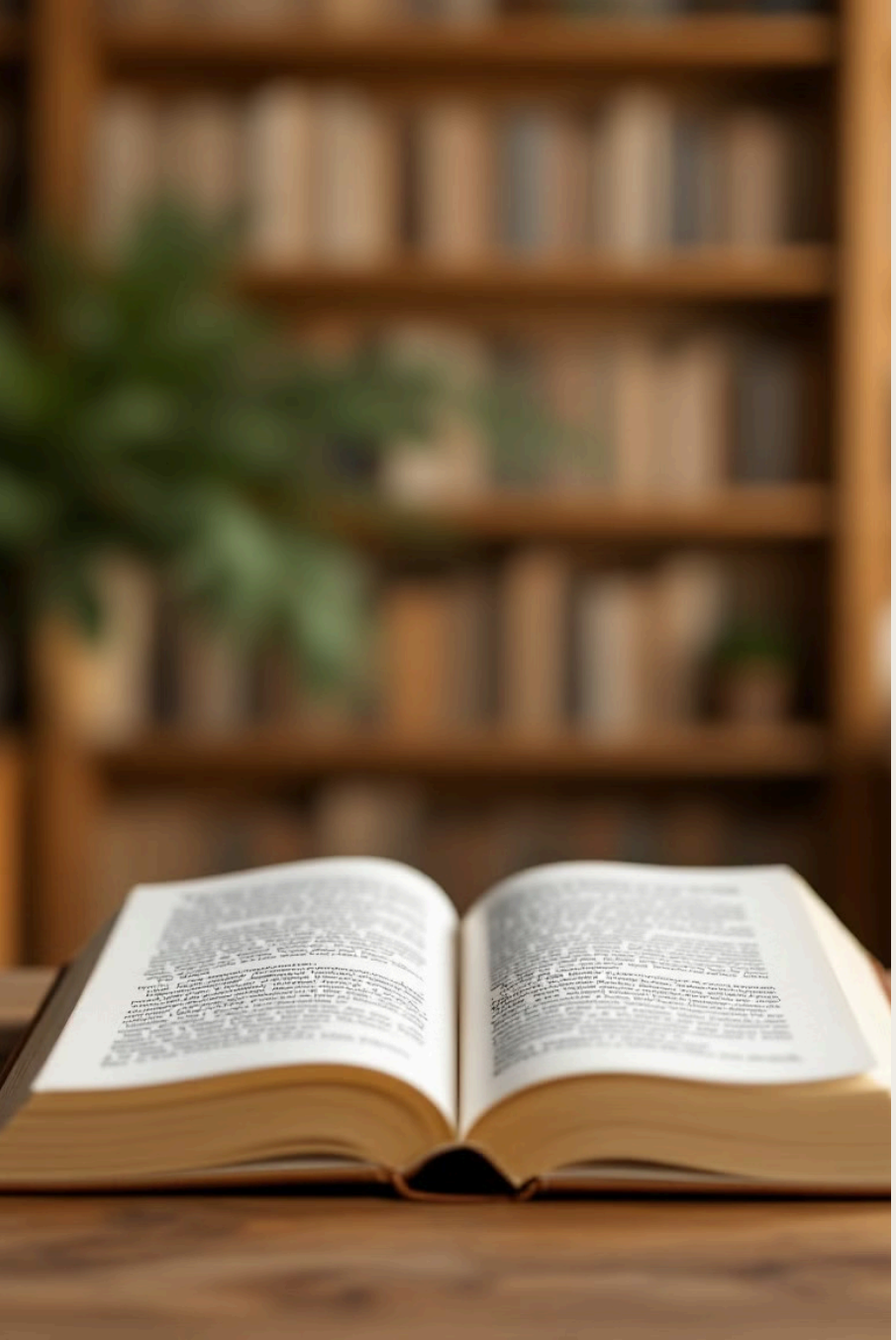


Book Recommendation System: A Content-Based Filtering Approach

This presentation explores a content-based filtering approach for recommending books. The system leverages book metadata like title, author, and publisher to suggest similar books to users.

by wanjiru Kinyanjui

Introduction

- Suggests books based on content similarity.
- Focuses on title, author, and publisher.
- Goal: Help users discover books they'll enjoy.

Methodology

Content-Based Filtering

Analyzes book metadata for similarities.

TF-IDF Vectorization

Converts text data into numerical vectors.

Cosine Similarity

Measures similarity between book vectors.

Implementation Steps

Data Collection & Cleaning

Removing duplicates and handling missing values.

Feature Extraction

Combining title, author, and publisher information.

Vectorization

Using TF-IDF to convert text to vectors.

Computing Similarity

Measuring cosine similarity between book vectors.

User Input & Recommendations

Accepting user input and suggesting similar books.

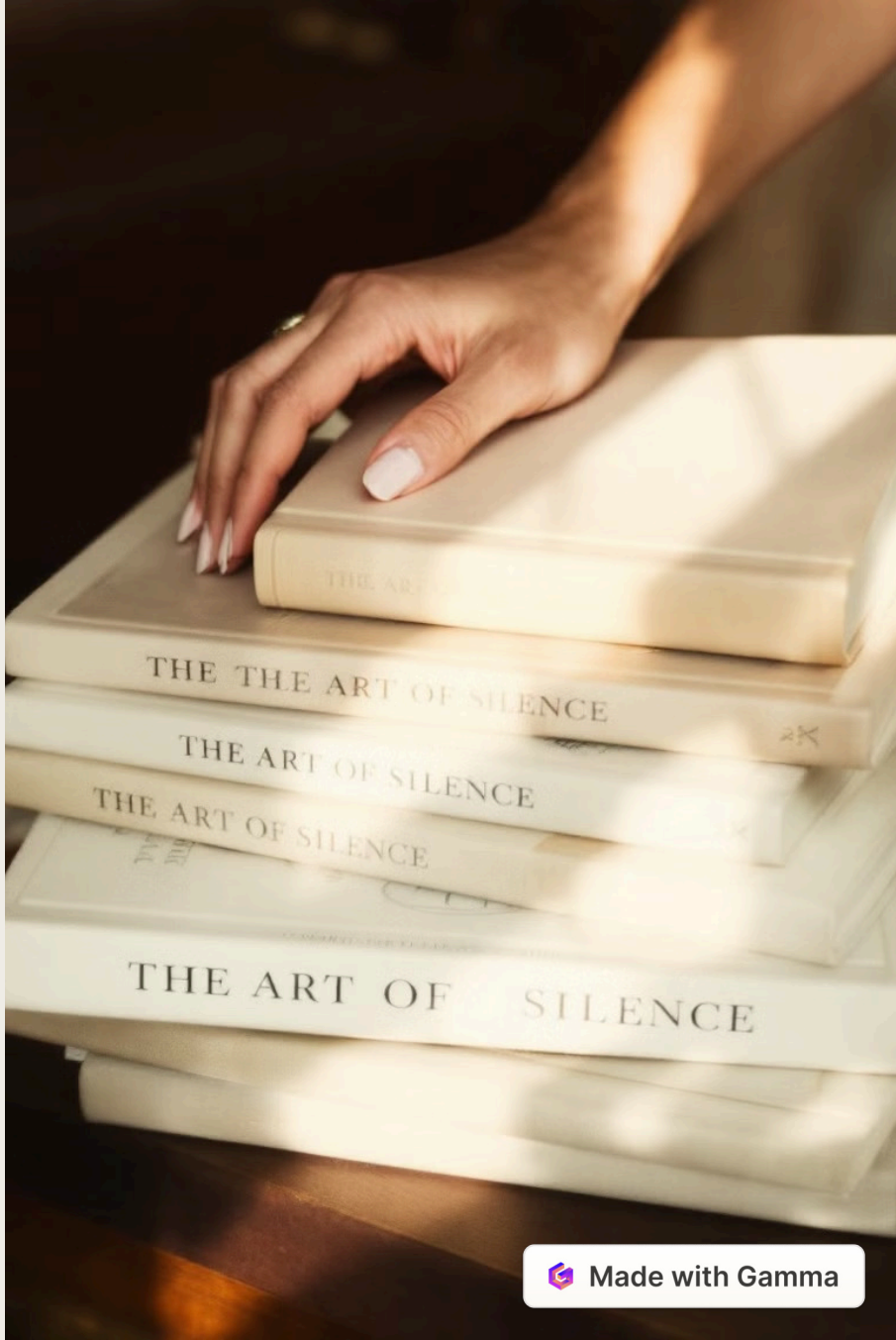
Example Usage

User Input

"Harry Potter"

Recommended Books

The Hobbit, Percy Jackson & The Olympians, The Chronicles of Narnia



Challenges & Improvements

Handling books with limited metadata.

Improving recommendation diversity.

Conclusion & Questions

1

Key Takeaways

Uses text similarity to recommend books.

2

Scalable

Handles large book datasets.

3

Personalized

Can be improved with user preferences.