

# Unleashing the Power of NLP in Jeopardy Question Processing

Team Members:

Ada Simon

Dani Badoiu

George Petrusel



# Core Functions

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`rename_files():`

Ensures data integrity by systematically renaming files within the dataset.

`advanced_normalize_text():`

Normalizes and preprocesses textual data for consistency and analysis.







# Integration with Elasticsearch

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**index\_wikipedia\_pages:**  
Efficiently indexes Wikipedia pages  
for quick and accurate retrieval of  
information.

**Technology:**  
Leveraging Elasticsearch for robust  
search capabilities.



The background of the slide is a collage of colorful geometric shapes in shades of yellow, green, and blue. Scattered across these shapes are several white, three-dimensional block letters. Visible letters include 'O', 'B', 'U', 'E', 'R', 'T', and 'D'.

## Cutting-edge Integration

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`search_and_rerank_with_chatgp:`  
Dynamically reranks search  
results using OpenAI's GPT-3.5  
Turbo model.

Significance  
Enhances accuracy by  
dynamically adjusting results  
based on Jeopardy clues.



# Evaluation and Impact

`evaluate_match_es_for_p_at_1`: Measures precision at 1 to assess the effectiveness of the information retrieval system.

**Results:** Demonstrated remarkable precision and accuracy through rigorous testing.

**Impact:** Showcases potential of combining advanced NLP techniques with innovative technologies to address real-world challenges.



# Conclusion

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Harnessing the power of NLP in Jeopardy question processing offers exciting opportunities for advancing artificial intelligence. By leveraging NLP techniques and addressing challenges, we can enhance question interpretation and drive innovation in the field of natural language understanding.