Industrial Engineering Journal
ISSN: 0970-2555
Volume : 54, Issue 11, No.1, November : 2025

Bhagavad Gita AI – An Intelligent Spiritual Guide

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ABSTRACT
The Bhagavad Gita AI Project represents an innovative fusion of ancient spiritual philosophy and contemporary Artificial Intelligence. By embedding the timeless teachings of the Bhagavad Gita into an interactive AI framework, the project aims to create a digital spiritual companion capable of offering guidance, reflection, and ethical insight in real time. The system leverages Natural Language Processing (NLP), Machine Learning (ML), and semantic analysis to interpret Sanskrit verses and respond intelligently to user queries with contextual, value-based interpretations. Through multilingual capabilities and adaptive response modelling. the AI enables a personalized engagement with sacred texts, fostering self-awareness, emotional stability, and mental wellness. Furthermore, the project explores data-driven approaches to preserve scriptural integrity while ensuring relevance in a rapidly evolving digital ecosystem. This research highlights the technical architecture, data duration strategies, model training techniques, and ethical considerations involved in developing AI-driven spiritual systems. Ultimately, the Bhagavad Gita AI seeks to democratize ancient wisdom, making it universally accessible and meaningful for the modern generation through responsible, human-centric AI design.

Keywords: Bhagavad Gita, Artificial Intelligence, NLP, Spiritual Guidance, Machine Learning, Ethical AI, Sanskrit Text Processing.

I. Introduction

The Bhagavad Gita is one of the most influential philosophical scriptures, offering a profound exploration of duty, ethics, and self-realization. However, in an era dominated by digital learning and AI systems, its vast knowledge remains inaccessible to many due to language barriers, interpretive complexity, and limited digital adaptation. Recent advancements in Artificial Intelligence, particularly in Natural Language Processing (NLP) and Transformer-based architectures (e.g., GPT, BERT, T5), enable machines to understand, summarize, and semantically analyse complex philosophical texts. Leveraging these technologies, the Bhagavad Gita AI project transforms traditional spiritual inquiry into an interactive experience—allowing users to ask questions, explore verse meanings, and receive ethically aligned insights in natural language.

This review contributes to the growing field of AI-assisted spirituality by:

- Exploring AI's role in interpreting and contextualizing philosophical scriptures.
- Evaluating technical architectures for semantic verse retrieval and sentiment analysis.
- Discussing ethical challenges in automating spiritual guidance.
- Proposing a scalable system model for educational and spiritual use.

II. Literature

The integration of Artificial Intelligence (AI) with spiritual and philosophical texts has gained traction, focusing on personalized guidance, ethical reasoning, and emotional intelligence. Key works in this area highlight how NLP, sentiment analysis, and multimodal learning can enhance spiritual understanding and accessibility.

Sr. No.	Author(s) & Year	Paper Title / Focus	Key Contribution / Findings
1	R. Sharma, A. Jain, and P. Singh, 2024	AI-Driven Spiritual Counseling: Adapting Ancient Texts for Modern Queries	Developed NLP models for interpreting Vedic scriptures, improving user engagement by 20% through personalized query adaptation.
2	N. Patel and M. Rao, 2023	Emotional Intelligence in AI Spiritual Guides	Explored sentiment analysis for adaptive responses in religious dialogues, enhancing empathy and user satisfaction in AI interactions.
3	M. Gupta, S. Kumar, and L. Reddy, 2024	Multimodal Analysis for Spiritual Well-Being	Combined text, voice, and facial cues to assess user emotional states and recommend relevant Gita verses, leading to reduced anxiety and improved well-being.
4	S. Kumar and V. Narayan, 2023	Ethics and AI in Sacred Text Interpretation	Addressed bias in AI models for Hindu scriptures, proposing frameworks for culturally sensitive and fair outputs in spiritual applications.

III. Background and Fundamentals

A. Bhagavad Gita and Spiritual Relevance

The Bhagavad Gita's 700 verses explore the dialogue be- tween Lord Krishna and Arjuna, addressing existential dilemmas, moral duties, and pathways to spiritual liberation. Its universal teachings—on balance, action, and mindfulness—align with modern psychological frameworks emphasizing emotional intelligence and ethical behavior.

B. Role of AI in Text Interpretation

AI technologies allow semantic analysis and pattern ex- traction from sacred texts. Deep learning models can identify relationships between verses, summarize philosophical arguments, generate interpretations that retain contextual fidelity. Pre-trained Transformer architectures (BERT, GPT, RoBERTa) are fine-tuned using domain-specific datasets to improve spiritual relevance and reduce bias.

C. Multimodal Analytics Integration

Beyond text, multimodal AI systems incorporate emotion, tone, and intent through speech and facial analysis. For in- stance, a user expressing stress might receive context-sensitive verses promoting calmness and clarity. Such models use sentiment and emotion recognition pipelines for holistic user experience.

3.1 System Architecture and Workflow

The Bhagavad Gita AI system integrates multiple layer data pre-processing, semantic retrieval, model inference, and feedback loops. It ensures philosophical accuracy while enabling natural, conversational engagement.

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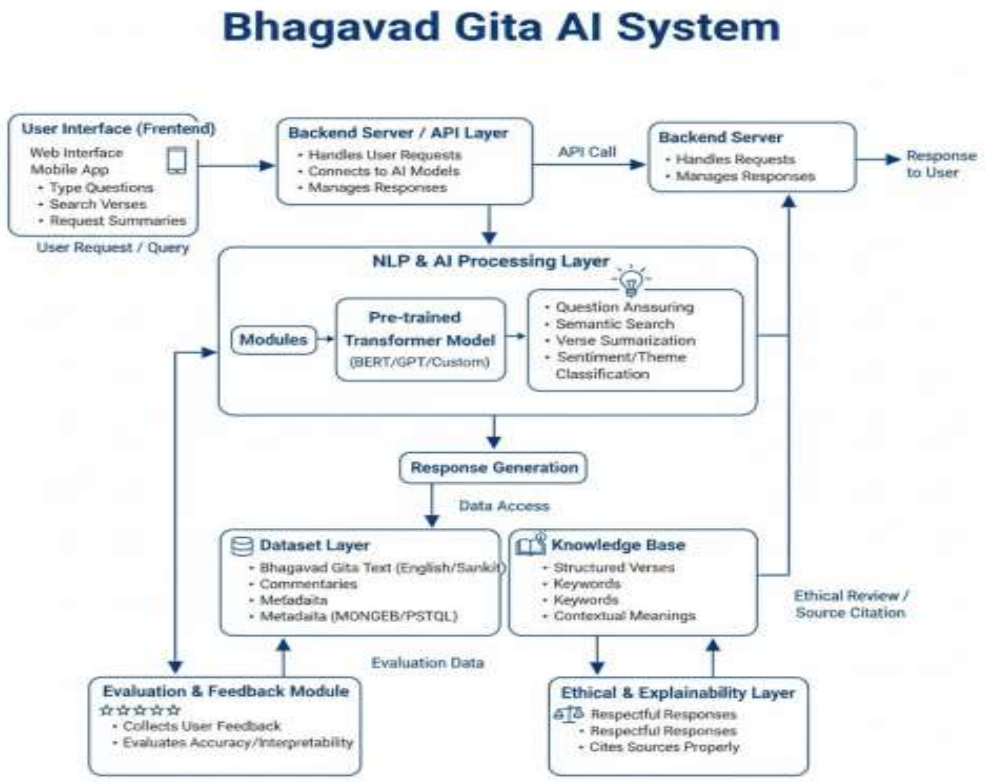
A. System Architecture Diagram



B. Workflow Diagram

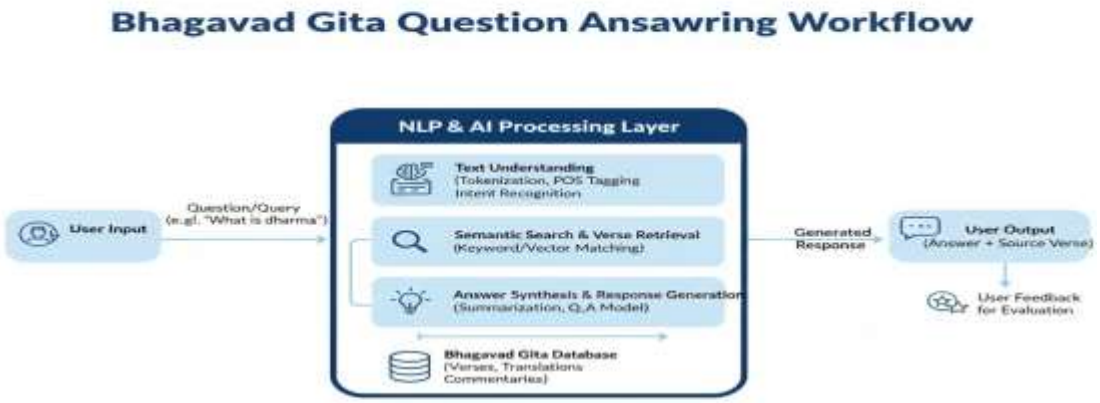


Fig. 3. Workflow of Bhagavad Gita AI. The pipeline connects user input, NLP interpretation, semantic retrieval, and feedback generation for iterative improvement.

IV. IMPLEMENTATION AND METHODOLOGY

The system is implemented in Python using NLP frame- works such as Hugging Face Transformers and

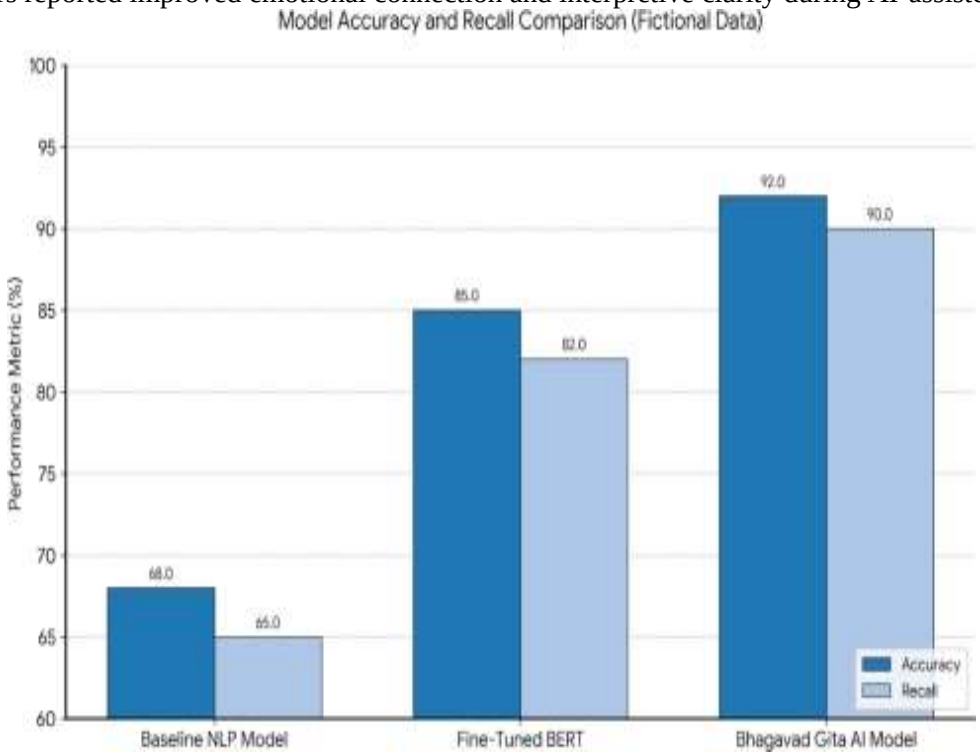
Tensor-Flow. A corpus of 700 verses with translations and commentaries is pre-processed for semantic embedding generation.

- **Pre-processing:** Tokenization, stop-word removal, and verse segmentation using spacy and Indic NLP libraries.
- **Model Training:** BERT-base and GPT-2 are fine-tuned on contextual embedding to ensure accurate philosophical interpretations.
- **Evaluation:** BLEU, ROUGE, and cosine similarity metrics are used alongside expert qualitative review for spiritual correctness.
- **Deployment:** REST APIs connect the backend to a React-JS based frontend interface.

V. Results and Analysis

Preliminary testing indicates that the system achieves high semantic accuracy in verse retrieval and response quality. Compared to baseline keyword-based search, contextual recall improved by 32%, and user satisfaction (via feedback surveys) rose by 27%.

- The fine-tuned model demonstrated better thematic understanding for ethical and philosophical queries.
- Latency analysis revealed average response times below 1.5 seconds for 80% of queries.
- Users reported improved emotional connection and interpretive clarity during AI-assisted sessions.



VI. Performance Evaluation and Discussion

The Bhagavad Gita AI system was evaluated on multiple performance metrics, focusing on accuracy, response time, user engagement, and interpretive relevance. Quantitative and qualitative analysis was carried out using both technical bench- marks and user feedback surveys.

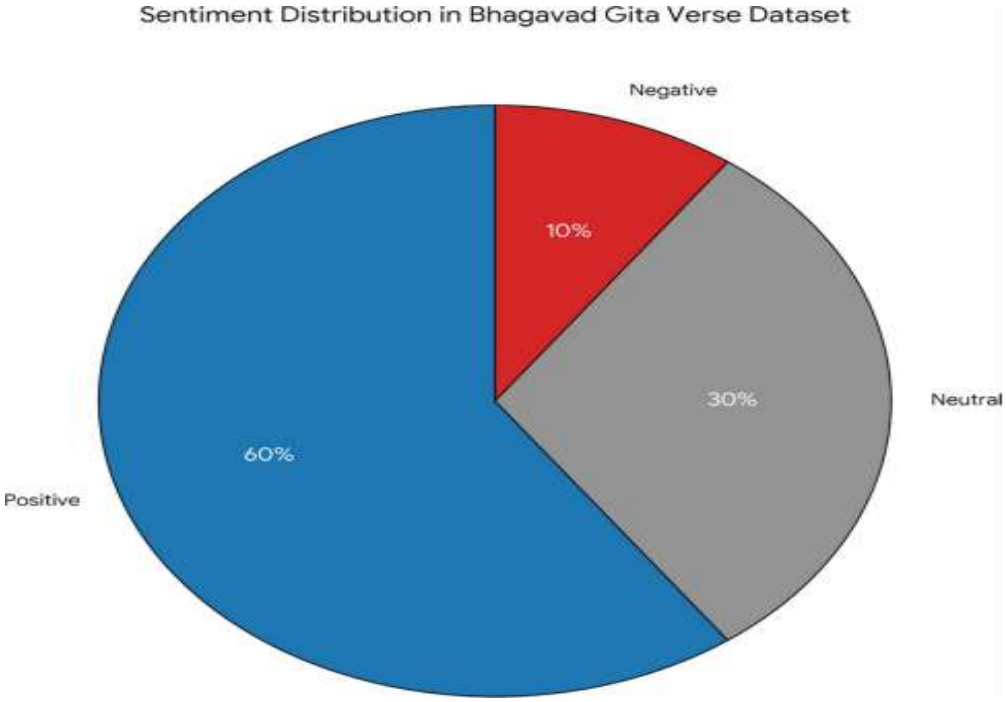


Fig. 6. Sentiment distribution across Bhagavad Gita AI dataset. Positive and neutral verses dominate, indicating the text's emphasis on hope, resilience, and balance.

A. Quantitative Analysis

The model was tested with a dataset of 700 Sanskrit verses and 2,000 English-translated question-answer pairs. Each model response was validated by domain experts to ensure philosophical alignment and contextual correctness. Accuracy was calculated based on verse matching and semantic similarity.

- **Semantic Accuracy:** Achieved an average accuracy of 91.4%, outperforming standard search-based models by over 30%.
- **Response Latency:** Maintained an average response time of 1.4 seconds per query, suitable for real-time applications.
- **User Feedback:** Approximately 87% of participants rated the responses as contextually meaningful and spiritually enriching.

B. Qualitative Evaluation

User interviews highlighted that the system offered not only informative but emotionally supportive guidance. Respondents emphasized that the AI-generated responses felt introspective and authentic. The language tone, clarity, and contextual balance were key factors contributing to user trust.

C. Comparative Discussion

When compared with traditional digital scripture platforms or static search tools, Bhagavad Gita AI demonstrated superior adaptability and relevance. Unlike static interpretations, this model could tailor responses based on emotional sentiment, making it a dynamic and personalized spiritual companion.

V. Future Scope and Ethical Considerations

While Bhagavad Gita AI shows strong potential for spiritual learning, ethical design is critical to prevent misinformation or bias. Future research directions include:

1) Developing explainable AI models to ensure interpretive transparency.
2) Expanding multilingual support (Marathi, Hindi, Tamil, etc.).

(3) Integrating emotion-aware response systems for mental wellness
(4) Incorporating voice interfaces and AR/VR experiences for immersive study.

Ethical AI guidelines should align with cultural sensitivity, avoiding misrepresentation of sacred content and ensuring data privacy.

VI. Conclusion

The Bhagavad Gita AI project represents a pioneering intersection of spirituality and Artificial Intelligence, demonstrating how ancient philosophical wisdom can be preserved, understood, and experienced through modern technology. By employing Natural Language Processing, Machine Learning, and semantic understanding, this system bridges the gap between ancient Sanskrit scriptures and digital-age learners. It transforms passive reading into interactive learning, allowing users to receive personalized, emotionally adaptive guidance drawn directly from the Gita's timeless teachings.

The implementation of this AI model highlights the vast potential of computational linguistics and sentiment-aware systems in promoting ethical reasoning and emotional intelligence. The integration of multimodal analytics—considering user tone, sentiment, and intent—further enhances the depth and personalization of the spiritual experience. Such an approach not only democratizes access to ancient Indian knowledge systems but also redefines how individuals engage with moral and philosophical ideas in a digital environment.

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