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(57) Abstract :

The invention discloses an AI-enabled software system for automated document summarization applications comprising a Document Ingestion Unit (101), a Preprocessing Module (102), a Feature Extraction and Embedding Module (103), a Summarization Engine (104), an Explainability Module (105), and an Output Summary Generation Unit (106). The system combines extractive and abstractive approaches, employs deep contextual embeddings, and provides customizable, multilingual, and scalable summaries. Experimental validation demonstrates its effectiveness in accuracy, coherence, and enterprise-level deployment, making it highly suitable for diverse industries including healthcare, legal, finance, and research applications.

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