## "A Hybrid Model for Academic Abstract Analysis Using .NET and Word Embeddings"

Academic paper analysis can be a time-consuming and challenging task, especially when it involves processing large collections of research abstracts. This paper presents a hybrid model for academic abstract analysis that combines the .NET framework with modern word embeddings, such as Word2Vec and GloVe. The system is designed to automate the extraction of relevant information from academic abstracts and perform semantic analysis to help researchers identify key themes and relationships within a corpus of research. The system uses .NET Core as the backend framework, integrating NLP tools for preprocessing text data, including tokenization, part-of-speech tagging, and named entity recognition. The hybrid model incorporates both traditional machine learning techniques and deep learning-based word embeddings to understand the semantic content of abstracts. Word2Vec and GloVe are used to generate vector representations of words, which are then used to calculate the similarity between abstracts. This enables the system to identify abstracts that are thematically similar, even when the specific vocabulary does not match exactly. Additionally, the hybrid model leverages supervised learning algorithms such as Random Forest and Support Vector Machines (SVM) to classify abstracts into predefined categories. The result is a robust system capable of extracting meaningful insights from large datasets, improving academic research efficiency. A user-friendly web interface built using ASP.NET Core allows researchers to upload abstracts, query the database, and receive relevant suggestions for further reading. The system's accuracy is evaluated using precision, recall, and F1-score, demonstrating its effectiveness in academic abstract analysis.