



Software Requirements: Advanced Approaches and Techniques

An Optimization of Semantic Similarity Measurement

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"Software Requirements: Advanced Approaches and Techniques" is a book focused on improving methods for measuring the semantic similarity between words and sentences in software requirements documents. It addresses challenges in understanding and interpreting software requirements accurately, especially when documents contain complex, ambiguous, or vague language. The book proposes techniques to enhance the comparison of words, phrases, and sentences, using methods such as natural language processing (NLP), machine learning, and other computational tools. By optimizing semantic similarity measurement, the book aims to improve communication between stakeholders, ensure clearer requirements, and more efficient software design and implementation. A novel hybrid method proposed by this book combines knowledge-based and corpus-based approaches and considers not only semantic information such as lexical databases, word embeddings, and corpus statistics, but also implicit word order information. It also proposes a framework using a novel hybrid methodology for identifying similarities in software requirements of the same domain to improve reusability and identify the correct requirements.

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