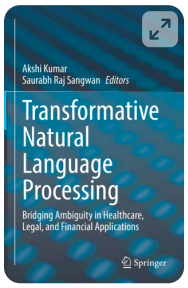

Transformative Natural Language Processing

Bridging Ambiguity in Healthcare, Legal, and Financial Applications

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Overview

Editors: Akshi Kumar, Saurabh Raj Sangwan

Explains how NLP tackles challenges in the healthcare, legal and finance sector, enhancing precision and decision-making

Features examples demonstrating successful NLP implementations that improve operational efficiency and problem-solving

Provides a perspective on ethical considerations, preparing readers to responsibly integrate and innovate with AI

About this book

The evolving landscape of technology has presented numerous opportunities for addressing some of the most critical challenges in high-stakes domains such as medicine, law, and finance. These fields, where the stakes are exceptionally high, have increasingly turned to Natural Language Processing (NLP) to manage, interpret, and utilize vast amounts of unstructured linguistic data. The complexities and subtleties inherent in human language pose significant challenges in these sectors, where precision and clarity are paramount. Misinterpretation or ambiguity can lead to far-reaching consequences, making the need for advanced NLP techniques crucial.

This book aims to bridge the gap between state-of-the-art NLP technologies and their practical applications in medicine, law, and finance. By focusing on the specific

challenges and advancements within these sectors, the publication intends to highlight innovative approaches, methodologies, and technologies that are shaping the future of NLP. It discusses the integration of NLP with other technological advancements, the development of new tools and techniques, and the ethical considerations involved in deploying NLP solutions in high-stakes domains.

Moreover, the book provides a platform for researchers, practitioners, and industry experts to share their experiences, insights, and research findings. Through comprehensive reviews, case studies, and empirical research, it covers a range of topics including but not limited to handling uncertainty in clinical notes, approaches for dealing with ambiguity in legal documents, sentiment analysis in financial markets, and ethical considerations in the use of NLP for sensitive data.

Keywords

Cross-Linguistic Knowledge Transfer · Data Security · Ethical AI · Financial NLP · Fraud Detection · Large Language Models · Legal NLP · Medical NLP · Natural Language Processing · Responsible AI · Risk Management · Robust Multilingual NLP Models · Sentiment Analysis · Uncertainty in NLP

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