



Deep Learning & Natural Language Processing Based Real-Time Applications

Mandakini Chagamreddy

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Mandakini Chagamreddy,
Assistant Professor, Dept. of CSE,
G. Narayanamma Institute of Technology and Science, Shaikpet, Hyderabad.

PREFACE

In the world of Deep Learning and Natural Language Processing (NLP), cutting-edge technologies merge to address the challenges of our time. In this book, we delve into the realm of real-time solutions for three crucial tasks: Image Forgery Detection, Text Summarization, and Questionnaire Generation. In today's digital age, image manipulation has become increasingly prevalent, posing serious threats to the authenticity of visual content. Deep Learning has emerged as a powerful tool to tackle this issue. By leveraging convolutional neural networks and advanced algorithms, we can now detect and expose instances of image forgery with remarkable accuracy and efficiency.

Text Summarization stands as another pivotal challenge in our information-overloaded world. With the vast amount of textual data available, the ability to condense and distill information becomes essential. NLP techniques, empowered by deep learning architectures such as recurrent neural networks and transformers, have revolutionized the field of text summarization. We will embark on a journey through the intricacies of these models, uncovering their mechanisms, and showcasing their real-time applications. By the end, you will possess the knowledge to develop systems that automatically generate concise summaries, saving time and extracting the essence of large volumes of text.

Questionnaire Generation, an essential aspect of data collection and analysis, has traditionally relied on manual efforts. However, with the advent of deep learning and NLP, we now have the means to automate this process intelligently. By understanding the nuances of natural language and applying deep learning techniques, we can generate well-crafted questionnaires tailored to specific contexts.

Through a blend of theoretical concepts, practical examples, we aim to equip you with the tools and knowledge necessary to tackle the challenges of image forgery detection, text summarization, and questionnaire generation.

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