Machine and Deep Learning Techniques for Emotion Detection

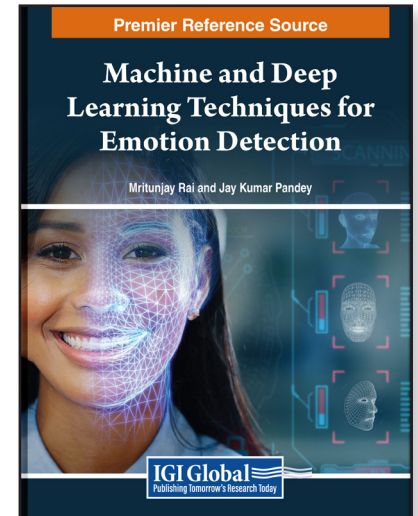Part of the Advances in Psychology, Mental Health, and Behavioral Studies Book Series

Mritunjay Rai (Shri Ramswaroop Memorial University, Barabanki (U.P.), India) and Jay Kumar Pandey (Shri Ramswaroop Memorial University, Barabanki (U.P.), India)

Description:

Computer understanding of human emotions has become crucial and complex within the era of digital interaction and artificial intelligence. Emotion detection, a field within AI, holds promise for enhancing user experiences, personalizing services, and revolutionizing industries. However, navigating this landscape requires a deep understanding of machine and deep learning techniques and the interdisciplinary challenges accompanying them.

Machine and Deep Learning Techniques for Emotion Detection offer a comprehensive solution to this pressing problem. Designed for academic scholars, practitioners, and students, it is a guiding light through the intricate terrain of emotion detection. By blending theoretical insights with practical implementations and real-world case studies, our book equips readers with the knowledge and tools needed to advance the frontier of emotion analysis using machine and deep learning methodologies.

Focusing on addressing challenges such as cross-cultural variability, data privacy, and model interpretability, **Machine and Deep Learning Techniques for Emotion Detection** provide a holistic perspective on the ethical, legal, and societal implications of deploying emotion detection technologies. Whether readers are researchers exploring convolutional neural networks for facial expression analysis or practitioners integrating emotion detection into healthcare or marketing, this book provides a comprehensive guide for unlocking the transformative potential of this burgeoning field.

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Topics Covered:

- Case Studies in Emotion Detection
- Challenges and Solutions in Emotion Detection
- Convolutional Neural Networks (CNNs)
- Deciphering Textual Sentiments
- Deep Learning Approaches
- Deep Learning for Speech Emotion Recognition
- Ethical Considerations and Responsible
- Technology Applications
- Evaluation Metrics for Emotion Detection Models
- Incorporating Emotion Detection into Human-Computer Interaction
- Integrating Multimodal Data for Enhanced Emotion Understanding
- Preprocessing Techniques for Emotion Detection Data

Subject: Medicine & Healthcare

Classification: Edited Reference

Readership Level: Advanced-Academic Level (Research Recommended)

Research Suitable for: Advanced Undergraduate Students; Graduate Students; Researchers; Academicians; Professionals; Practitioners

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