Advancements and Trends in CNN-Based Handwritten Text Recognition: A Comprehensive Survey

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Abstract: *Handwritten Text Recognition (HTR) is pivotal in transforming handwritten documents into digital format, enabling efficient search, storage, and information retrieval. In this project, we explore the application of Convolutional Neural Networks (CNNs) for HTR tasks. We comprehensively analyzed existing literature surveys to understand the current state-of-the-art techniques, methodologies, and challenges in HTR using CNNs. The survey encompassed various aspects including network architectures, dataset compositions, preprocessing techniques, and evaluation metrics. Our findings reveal the evolution of CNN-based HTR systems and highlight key trends in research, such as the integration of attention mechanisms and recurrent neural networks to enhance recognition accuracy and contextual understanding. Through this analysis, we provide insights into the advancements and future directions in CNN-based HTR methodologies.*

Keywords: Handwritten Characters, CNN, Literature Reviews.

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