Sr. no	Year	Basic Idea	Methodologies	Results	Limitations
[1]	2023	Integration of OCR and Knowledge Graphs:	Implemented Tesseract OCR with OpenCV in Python, focusing on image preprocessing for optimal results. Integrated text detection and recognition components, ensuring efficient extraction from medical prescriptions. Code snippets and libraries used are detailed for reproducibility.	Achieved satisfactory OCR accuracy with well- preprocessed images; however, Tesseract struggled with complex backgrounds and artifacts, yielding suboptimal outputs.	Tesseract's accuracy is hindered by poor image quality, requiring meticulous preprocessing. Challenges arise in handling artifacts, handwriting, and diverse languages. Document structure analysis limitations include difficulties with multi- column layouts and potential for gibberish output.
[2]	2021	Optical Character Recognition Using TensorFlow	Implemented OCR with TensorFlow,Enhanced model robustness with data augmentation technique Implemented a custom ResNet architecture for OCR.	These results showcase the effectiveness of the OCR model, particularly in accurately recognizing characters within the test set, demonstrating its robustness and suitability for the specified task.	Our model can fail if the image is very complex. E.g. cursive writing images or images with continuous characters. Currently our model is trained on only english language and digits. So, if a user uploads an image of some other language then it given wrong predictions.
[3]	2021	Construct a biomedical knowledge graph with NLP	extracted text from biomedical document using ocr and applied BERN and utilized zero shot relation extractor	Successfully established a Neo4j knowledge graph, showcasing versatility through demonstrated applications such as a search engine, co- occurrence analysis, and author expertise inspection, while emphasizing its utility for diverse biomedical machine learning applications.	Limitations include persistent NER challenges with BERN, potential inaccuracies in the zero- shot relation extractor, and the need for expert validation, with external database enrichment reliant on data consistency.
[4]	2018	Build a Handwritten Text Recognition System using TensorFlow	Implemented HTR using TensorFlow, with a NN trained on IAM word-images, including CNN, RNN, and CTC layers. Preprocessed data with resizing, normalization, and potential augmentation. Utilized RMSProp for training, and explored enhancements like data augmentation, input size adjustments, and decoding strategies.	Implemented successful HTR on IAM word- images, enabling flexible NN customization and identifying areas for accuracy improvement.	Limited diversity due to reliance on IAM dataset. Potential recognition errors, especially for non- dictionary words. CPU- based training may be slow; GPU recommended.
[5]	2022	doctors handwritten prescription recognition system in multilanguage using deep learning	Implemented a system employing machine learning techniques, such as CNNs, RNNs, and LSTMs, for recognizing and translating handwritten prescription notes in diverse languages.	Successful recognition and translation of handwritten prescriptions in various languages. Demonstrated the efficacy of CNNs, RNNs, and LSTMs in multilingual handwritten text processing.	Sensitivity to variations in handwriting styles. Reliance on quality and diversity of training data for optimal performance.
[6]	2022	Comparison of Various Machine Learning Algorithms for Recognizing Text on Medical Prescriptions	Proposed approach involves image scanning, pre- processing, and CNN- based feature extraction for recognizing handwritten medical prescriptions. Results are compared with a drug name database using OCR for medicinal name identification.	Successful implementation of CNN- based recognition for medical prescriptions. Need for further investigation into alternative machine learning algorithms for comprehensive comparison.	Limited exploration of alternative machine learning algorithms. Identification challenges with low- accuracy medicinal names in OCR.
[7]	2022	Online Cursive Handwritten Medical Words Recognition System	Implemented an online cursive handwritten medical word recognition system using a bidirectional LSTM network. Employed data augmentation techniques to enhance recognition efficiency.	Successful utilization of bidirectional LSTM for cursive medical word recognition. Recognition efficiency improvements achieved through data augmentation.	The system is restricted to providing output only for the trained data. Inability to generate output for new, unseen data due to lack of adaptability.
[8]	2021	Medical Prescription Recognition Using Machine Learning	Developed a Medical Prescription Recognition system employing image processing techniques and machine learning algorithms to identify handwritten medicine names from prescription note images..	Successful integration of image processing and machine learning for medical prescription recognition. Acknowledged limitations include reliance on a small dataset and lower accuracy.	Limited dataset usage in the system. The system exhibits low accuracy levels
[9]	2021	Medical Prescription Identification Solution	Implemented a Medical Prescription Identification Solution employing a neural network for character recognition and knowledge- based matching for accurate results.	Utilized neural network approach and knowledge- based matching for effective prescription identification.	Restricted to reading only one line at a time.