Clinical NLP Accelerator

Unlock the Value of Clinical Notes with Healthcare Specific Data Extraction

Clinical notes contain valuable information needed for a variety of provider and payer use cases. Unfortunately, large amounts of clinical notes exist in unstructured format, which limits their ability to be used and analyzed, and also involves significant manual effort to transcribe the information. In addition, the lack of a centralized process for clinical notes extraction makes it difficult for the extracted data to be used at an organization level. This results in significant duplication of tasks and limits the availability and quality of data for business operations.

Common OCR and non-clinical NLP solutions have multiple challenges around extracting clinical data accurately, due to the complex nature of information, codes and contextualization, which are unique to healthcare data.
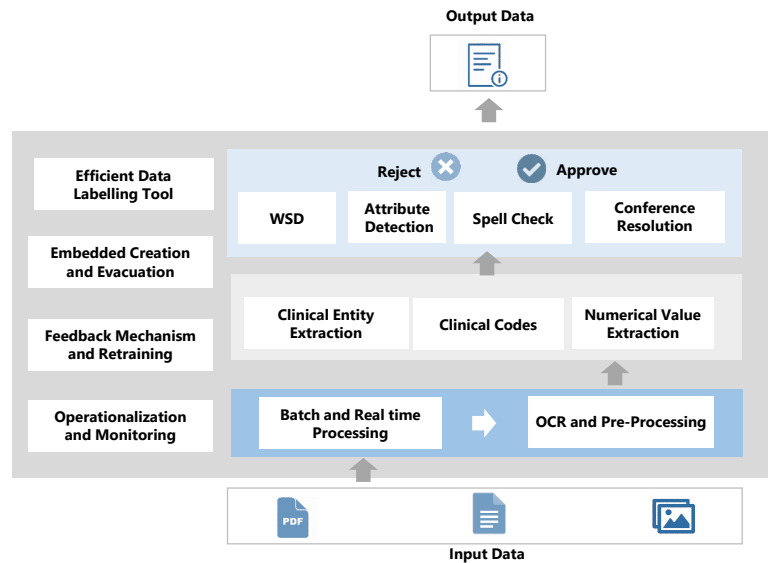
CitiusTech's Clinical NLP Accelerator is a next-gen tool that leverages deep domain knowledge and healthcare specific algorithms to provide fast and accurate extraction of information from unstructured clinical notes leading to a significant redcution in manual effort.

Key Advantages

- NLP model trained on industry-specific algorithms for accurate and contextual data extraction

- Comprehensive entity extraction including clinical concepts (diagnosis, observations, medications, procedures) and numerical values (vital signs, lab results)

- Integration with UMLS and custom dictionaries with semantic search capability

- Intelligent contextualization (automated spell-check, attribute detection, word sense disambiguation and co-reference resolutions)

- Model monitoring with retraining and evaluation pipelines to ensure accuracy

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The Clinical NLP Accelerator is an effective tool for healthcare organizations looking to reduce operational costs, scale up processes to manage increasing volumes of unstructured data, or improve information availability and re-use across the organization. Few of the most widely applicable uses include

- Extraction of SNOMED codes from unstructured clinical notes

- Cohort building at provider organizations

- Extraction of data for HEDIS measure abstraction at payer organizations.

Clinical NLP Accelerator: Architecture

About CitiusTech

CitiusTech is a specialist provider of healthcare technology services and solutions to healthcare technology companies, providers, payers and life sciences organizations. With over 4,000 professionals worldwide, CitiusTech enables healthcare organizations to drive clinical value chain excellence - across integration & interoperability, data management (EDW, Big Data), performance management (BI / analytics), predictive analytics & data science and digital engagement (mobile, IoT). CitiusTech helps customers accelerate innovation in healthcare through specialized solutions, platforms, proficiencies and accelerators. With cutting-edge technology, world-class service quality and a global resource base, CitiusTech consistently delivers best-in-class solutions and an unmatched cost advantage to healthcare organizations worldwide.

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