**Intelligent Symptom Interpretation System (ISI)**

**ABSTRACT:**

In healthcare, patients often describe symptoms in vague or non-medical language, making it challenging for systems to interpret their conditions accurately. This project proposes the development of an **Intelligent Symptom Interpretation System (ISI)** — a chatbot-based interface designed to understand and analyze indirect or imprecise symptom descriptions using **Natural Language Processing (NLP)**.

The system leverages **spaCy's NLP pipeline** to extract key symptom-related terms from user input. These symptoms are then mapped to probable medical conditions using a **rule-based knowledge base**, simulating diagnostic reasoning. This lightweight, API-free version ensures offline functionality, making it suitable for resource-constrained environments.

The model demonstrates how basic NLP combined with a medical ontology or dictionary can support symptom interpretation and guide preliminary triage. This approach highlights the potential of AI in enhancing **accessible and intelligent healthcare support**, particularly in situations where medical expertise or internet connectivity is limited