

Self-evaluation

We have achieved the plan to develop a functioning physician search application. The application takes user symptoms as input, evaluates the similarity against a symptom to disease mapping, identifies the recommended specialties associated with the predicted disease from user symptoms, and returns a list of doctors that match the retrieved specialties. There are a few directions for future work to improve the application:

- Direct evaluation of search results by human to systematically benchmark model performance
- Implement BERT-NER or Jaccard in place of the TF-IDF model as the back-end retrieval/relevancy evaluation methodology
- Enable additional features in the web application to allow filtering of returned list of doctors by location, languages, and or other specialty requirements
- Incorporate publicly available EMR data, e.g., [MIMIC-III](#) to achieve more nuanced relevancy designation of patient symptoms