CS664 Semester Design and Implementation Project Proposal

Number of team members:3

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Project Title: Artificial intelligence disease triage system

Computer Platform: OS

AI Tools utilized: none

Programming Language: Python/R and SQL

Project Description:

We plan to create an artificial intelligence disease triage system (including database, algorithm and user interface). Users will input their disease descriptions, and the system searches according to the database and the corresponding model to obtain the disease most in accordance with the description characteristics and will provide some useful advices. We will use the database from CDC to build the NLP model for each disease. And the algorithm of this system will focus on Machine Learning and Decision Tree implementation (Using Decision Tree to search the database).

What we will learn from this Project:

The establishment of this intelligent disease triage system can greatly reduce the primary diagnosis of diseases, thereby reducing the pressure of medical treatment in areas with heavy disease burden. If the patient has only a few superficial symptoms, it is reasonable to expect which diseases will develop in the future, so that the examination and treatment can be done in advance.

Potential Implementation Problems:

Two main difficulties for this system

1. Hard to find enough data sample to build the NLP model, since many diseases do not have tons of records online.

2. We need to keep high enough model accuracy, otherwise this system is not too much meaningful.