

Emily Vue

Final Project

CIDM-6330

A Health Journal App

Nearly 1 in 20 adults are misdiagnosed each year in the USA. According to the Society for the Improvement of Diagnosis in Medicine, between 40,000 and 80,000 individuals die each year due to misdiagnosis. The part of the system I would like to focus on is taking a health journal app and incorporating AI to create a system that learns. This will help patients visualize their health, allow patients to communicate more clearly to healthcare workers to provide a more accurate diagnosis, and ultimately help prevent future health issues before they get worse. When doctors diagnose, they are going through the same reasoning and deduction AI could accomplish while being able to accurately process larger sets of data, such as all the patient's history, lab test results, and current symptoms. What I would start with is seeing the data on misdiagnosis and understanding more deeply what medical professionals are missing that the system could help with. Since everyone's health is unique, the design must be easily customizable to the user, accommodate change often, and have the ability to communicate with others systems.

A designed software system that could assist in solving this issue is an all in one medical app/system connected to each person's primary healthcare provider. This add would be able to assist patients and help decrease misdiagnosis. Currently, on the market all the medical apps are very specific and do not encompass in-depth tools of which I feel that it can offer. Some features the system could offer is being able to sync

with other apps, use AI to collect symptom information and alert when a pattern occurs, or medical todo list and enter viable to help track health progress. If connected to a healthcare provider, patients can see and pay bills and the healthcare provider could send helpful videos or articles to the patient. The system would allow for more accurate data transfer and less repetitive tasks for the patient. Currently my mother is in need of an MRI, which she has done before. However, she is unsure of which location or doctor she went to get this done. This medical journal could have helped my mom save money and time. A system like the one stated above could help prevent medical illnesses from progressing, allow for clear medical charges, and save lives.

Due to the pandemic, we have seen a huge leap of healthcare and technological advancements for patients. As I am getting older, I can see my body changing and my parents' health as well. I would like to not only have a journal to track my health but a smart journal that could help be proactive by predicting patterns. This has more to do with my personal interest than a professional one. However, quality of life is directly affected by one's health. For my final project, I will try to build a working selection in my Health Journal App, for the following Test Driven Development (TDD) method of building software. Along with using the methodologies in the APP book, Flask as a processor, and SQLAlchemy. I will focus on coding the entry log for daily medicine intake. My project will consist of first the patient recording their daily medicine intake for the day. Each log will create a unique ID, and each log will consist of the name of the medicine taken, amount, and record the date of the entry. Then I will create a test to test aspects of add, delete and edit to the daily entry.

In conclusion, developing this software system will help address a much needed problem in the current healthcare industry. It will ultimately lead to better diagnosis and more people healing. Using the test driven approach will allow us to ensure accuracy for the patients and doctors.