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Required Skills:

Data flow in a healthcare system, HIPAA requirements, EMR and payment system knowledge, ICD and CPT codes, Project Management, Communications

Preferred Team Communications:

WEBEX, weekly or as needed

Data Sources:

Digital Record, Mentor knowledge of payment processes or demographic/payment data related to patients similar to Marla, External research of existing solutions (APIs and tools to enable prioritization of next steps or longitudinal care).

Other Items:

Project has time zone flexibility. Mentors and students will determine a good time for virtual meetings.

MHEALTH AND PATIENT TOOL

High healthcare costs are driving the need for all facets of the healthcare system to be more efficient. One idea is to predict what an individual patient will need next in their plan of care (access, treatment decisions, and payment). Ideally, all patients will follow a similar plan of care; however, this varies greatly for many reasons (individual preferences, other clinical conditions, insurance coverage, and convenient access). Therefore, the idea is to explore how AI could be used to predict what is needed next.

PROJECT OBJECTIVES

Explore how AI could be used to predict what steps are needed next for the individual patient based on the current ICD and CPT codes, demographics, and digital records. This may be steps such as finding a doctor, acquiring a referral, completing lab work, submitting claim, etc.

SUCCESSFUL PROJECT

Design a proof of concept, utilize comparisons with technologies like machine learning and NLP. Create an implementation model.

Consumer tools typically exist for when they are seeing a single provider (hospital or clinic levels), but not for care across multiple providers; also many exist that are purely clinical treatment based without taking into account the burden of financial and social stressors. A holistic solution is needed.

Intellectual Property: Project involves a government agency so the resulting project is made available to the public. Students do not own IP. Students will be recognized as contributors