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## SANDY LONG & HOLLY BIERNACKI

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<https://www.linkedin.com/in/sandralong/>  
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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:

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 timezone flexibility. Mentors and students will determine a good time for virtual meeting.

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## MHEALTH AND PATIENT TOOL

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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, convenient access). Therefore, the idea is to explore how AI could be used to predict what is needed next.

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### PROJECT OBJECTIVES

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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..

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### SUCCESSFUL PROJECT

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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.

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**Intellectual Property:** Students will own any IP from this project.