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## MARLON PARRIS

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### **Required Skills:**

Java, Python, Microsoft Azure Cognitive Services (AI/ML/NLP, etc.),

### **Preferred Team Communications:**

Conference Call, to be discussed

### **Data Sources:**

Clinical and Non-Clinical Databases (i.e. EHR and PubMed, etc.)

### **Other Items:**

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

### **Team Info:**

Needs a Developer, Analyst, DBA, Tester, Project Manager, AI/ML/NLP Engineer(s). Allows one team of 4-6 members.

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## FHIR AI ENABLED APPEAL FOR RADIO FREQUENCY ABLATION (RFA) PAIN MANAGEMENT THERAPY

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RFA pain management therapy is a non-opioid alternative medical procedure to treat patients with lower back pain. As a consequence of the opioid epidemic, physicians are making clinical decisions to use non-opioid options, for patients lower back pain management treatment. However, many patients health plans require prior-authorization approval, for RFA therapy. When patients health plans deny approval for RFA medical procedure, it is a cumbersome process to appeal the denial decisions. A FHIR AI enabled app to support this clinical administrative activity would be highly beneficial. The app could digitize and simplify physicians workflows in support of RFA therapy appeals.

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## PROJECT OBJECTIVES

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The objective of this project is to develop a FHIR AI enabled app to appeal for RFA pain management therapy approval, with the following approximate functionality:

- (1) Retrieve from EHR relevant information to initiate an appeal for RFA medical procedure (i.e. Patients health plans denial notifications with reason type(s); physicians recent medical note(s); basic patient demographic data).
- (2) Gather and Curate best current relevant insights from PubMed database, about benefits of RFA medical procedure to treat patients with lower back pain diagnosis. Also from EHR, physicians recent medical note(s).
- (3) Retrieve and Populate an appeal template with best insights for getting approval, for RFA medical procedure and submit to patients health plans.
- (4) Since Microsoft developed a FHIR server for Azure cloud-based open source API(s), development of the app could perhaps leverage this resource.

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## SUCCESSFUL PROJECT

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CS6440 students working on the Angama Health Inc project would be credited as contributors.

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**Intellectual Property:** None