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## GARI CLIFFORD & CHRIS AARON

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[HTTP://WWW.BMI.EMORY.EDU/GARICLIFFORD](http://www.bmi.emory.edu/gariclipford)

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### Required Skills:

Java, Swift, Android, iOS, HL7, XML,  
SMART on FHIR

### Preferred Team Communications:

In-person

### Data Sources:

IndivoX, Cerner's demo database,  
Epic, Millennium

### Other Items:

Students must be local to Atlanta  
and willing to come to Emory on a  
weekly basis for meetings.

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## EMRs AND PHRs ON FHIR – PERSONALIZED MEDICINE WON'T HAPPEN WITHOUT THIS!

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Significant inefficiencies exist in the medical system leading to inflated costs, high error rates, and low patient satisfaction. A patient-focused personal healthcare record on a smartphone, linked to the hospital's electronic medical record, is likely to improve appointment take-up, accurate information flow (reminders of what happened last time, and the patient's follow up actions), better communication, reduced errors (or omission and commission) and reduced visits/healthcare utilization.

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### PROJECT OBJECTIVES

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Develop a smartphone app which allows patients to track their visits, identify key information related to their health and treatment, and review basic medical information about themselves for accuracy / annotation.

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### SUCCESSFUL PROJECT

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The solution will be an app (running on Android, and if time, on iOS) to allow users to securely store data on their phone using a portable open source PHR (IndivoX). FHIR protocols will be used to communicate with Epic's EMR and Emory's EMR (Cerner Millennium) to allow the logging of visits, appointments, medications, history etc. Ideally the app will be able to allow the user to view their history of appointments and diagnoses/prescriptions, link to related material, allow patients to enter their worries and history, including photos and audio recordings, allow the recording of discharge instructions for later review (with auto reminders), medication pick up/refill, rating of their experience/pain/stress levels during the experience, and tracking of their time through the healthcare system.

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**Intellectual Property: Students Own Project IP.**