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### **Required Skills:**

(List skills needed) – Python, Native iOS, Jupyter, Postgres, Other NoSQL, AWS - flat files

### **Preferred Team Communications:**

Zoom

### **Data Sources:**

We will partner with physicians and researchers at the CHoA Cystic Fibrosis program (<https://www.choa.org/medical-services/cystic-fibrosis>). An assessment of which medical records can and need to be accessed will be a first priority for the team working on this project.

### **Other Items:**

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

### **Team Info:**

Needs a Developer, Project Manager, QA. Allows one team of 4-6 members.

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## CAREFULL APP FOR CYSTIC FIBROSIS CARE

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Each year, about 30 babies are diagnosed with cystic fibrosis in Georgia, and parents of 660 children each year choose the nationally ranked pulmonology program at Children's Healthcare of Atlanta for the best care. Thanks to innovative research and improved medical technologies, the lifespan of children diagnosed with CF has increased more than 10 years since 1986, but for patients, hospital charges have increased over 57% from 2003 to 2013. While a number of hospital visits can be prevented, there is no gold standard yet for managing symptoms at home, as most information after diagnosis comes from a pamphlet or brochure for any disease.

We propose development of an app, CareFull, which aims to render pamphlets obsolete, by allowing parents of newly diagnosed CF patients to track and interact with symptom management at home.

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## PROJECT OBJECTIVES

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Our goal is to innovate the approach to living with cystic fibrosis, particularly for parents of newly diagnosed children. We hope that by implementing our app according to FHIR standards, parents will be able to interact with their child's treatment plan through easy access to their child's medical history, medication documentation, and diet. A basic design has already been developed and partially code, but needs to be completed to the point where it is actually available for use. In addition, we propose upgrades so that it can be integrated with CHOA's electronic health records (EHR) system, and subsequently implemented with the help of patients and families through the Cystic Fibrosis Center at Children's Healthcare of Atlanta.

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## SUCCESSFUL PROJECT

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Further development of a basic CareFull app was designed and partially written by 3 biological science undergraduates in the Spring. They are listed as collaborators and are open to consult on further development of this app. More to be discussed.

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**Intellectual Property:** None