ECE Capstone program  
Spring 2017  
Summary Project info

Please provide the following information to be shared with on capstone information exchange platform:

1. **Project number**: S17-24

2. **Project title (as will appear on the poster)**: Mobile Application for Cough Classification

3. **Team members**: Jonathan Cheng, Daniel Eckels, Brice Howard, Christina Parry

4. **Advisor(s) name(s)**: Professor Mehdi Javanmard

5. **Up to 10 keywords that will help to classify the project**:  
Telehealth, Health, Android, Machine Learning, Cough, Classification, Feature Extraction

6. **Project abstract (up to 200 words) to be shared with judges**:

   The Mobile Application for Cough Classification serves to distinguish between various types of coughs by utilizing a machine-learning algorithm to produce a set of probabilities, quantifying the likelihood and severity of a given cough. The algorithm, trained using a set of clinical patient cough samples, compares the features of incoming audio to the training data. In this way, an accurate cough diagnosis is attainable with the convenience of a personal mobile device.

   This application would allow anyone to use a smartphone as an around-the-clock medical advisor to diagnose the user’s type of cough. Providing advice on whether the user should visit a physician for proper diagnosis, the application is not intended to be a replacement for doctors. Instead, it is meant to reduce unnecessary visits to the doctor’s office and give health advice to those who may not be able to visit a doctor in a timely fashion.