1. **MoveIt! -** We have built an html-based mobile "application" called *MoveIt!* which recommends food options and green spaces based on an individual's location. The goal of *MoveIt!* is to help people discover new areas of their neighborhood and lead them to make healthier lifestyle choices. *MoveIt!* ranks restaurants by the number of healthy choices on the menu and makes recommendations to users for specific healthy menu items. *MoveIt!* also recommends nearby green spaces based on user-defined walking time or distance preferences. The app is currently html-based and needs to be converted into an iOS platform in order to perform large-scale testing of the behavioral interventions. Additionally, we would like to include habit tracking or consider individual health factors (e.g. limited mobility; low sodium diet) to tailor the interventions to a user's particular preferences. Another improvement we can make is to include grocery store options to facilitate quickly gathering the ingredients for healthy recipes recommended by the app with individualized considerations for socioeconomic status and availability of food items close to home or work. One or two teams could take on one or more aspects of this project. **(CONTACT: Jessilyn Dunn, jessilyn.dunn@duke.edu)**
2. **Home Health Care -** Home health care services make care more accessible for patients living in the communities. However, it is challenging to coordinate traveling, scheduling appointments, communicating with other clinicians, and tracking teamwork or changes to adjust care plans in community settings. In addition, patients find it difficult to communicate with clinicians for care or health questions and change of appointment schedules. These issues result in reduced productivity and wasted time in the health system. I want to develop a mobile app with automated algorithms to make care coordination easier for clinicians and patients in home health care settings. My vision is an Uber-plus-24me personal assistant, coordination, and time management tool that brings home care networks together on one platform. Some functions include but not limited to a calendar for automatic tracking of visiting time and schedule, messaging and virtual communication, task reminder, GPS, and easier resource visualization, allocation and sharing. It will allow clinicians more efficiency with managing traveling, scheduling, collaboration, and documentation. It will also be a platform for patients to communicate with clinicians and access resources and information electronically and directly. **(CONTACT: Sijia Wei, sijia.wei@duke.edu)**
3. **Resiliency App–** Burnout is pervasive in medical practitioners and is related to poor patient outcomes and practitioner performance. Currently at Duke, seminars on resiliency and burnout are offered, but there is no good way for the busiest of practitioners to access the needed information and tools that could help them combat burnout. It has been proven that to be successful in these techniques, it takes practice. I would like to make an app that allows practitioners to access the needed information and get reminded daily of how to cultivate and build their resiliency. I would like to enroll groups of practitioners for a certain length of time where a "coach" will help guide

them through some resiliency training (meaning a push notification to their smart phone about a posts from the coach). There would be a board or newsfeed where posts can be written, liked, or commented on to help connect the group and encourage/foster positive emotions. I would be happy to assist with any planning and execution, please contact me at any time. **(CONTACT: Margaret Leddy Margaret.leddy@duke.edu)**

4. **DukeFlyer companion app** – DukeFlyer (https://flyer.duke.edu/) is the content management and approval system for digital flyers and digital signage across campus. The mobile companion app would use GPS to tell you which sign you were near and then using the Four Winds API, allow you to browse through the flyers currently playing on that sign on your phone by swiping left/right. This is for the person walking by a sign, seeing something but then it disappears and they don't want to stand there to see it come back. An additional feature could be the ability to browse all slides and filter by tags. (CONTACT: Stephen Toback (sct10@duke.edu) / Evan Levine (evan.levine@duke.edu))
5. **DukeEats**. Finding a place to eat between classes can be a pain. Sometimes when you pick a place, the line is too long for you to eat and get to your next class. "Duke Eats" is an app which combines data about your class schedule, dining options, GPS data, and crowd feedback to help you find the optimal place to eat in the time you have. (CONTACT: Michael Faber, maf13@duke.edu)
6. **A Portrait of Venice: Urban Legends (iPad)** Following an innovative exhibition entitled *A Portrait of Venice*, we would like to invite you to help us develop a prototype application that leverages the captivating historical stories that emerge from Jacopo de' Barbari's bird's eye *View of Venice* published in 1500 (high resolution image link: https://repository.duke.edu/catalog/duke:448098). In the advent of educational outreach by companies such as Apple, the highly engaging material could establish a new paradigm for exploring historical information and learning to navigate the spaces of vital cities, past and present. The app might conceivably reach a wide audience—from people who anticipate visiting Venice to school age children interested in the remarkable confluence of art, science, and technologies of the Renaissance; from those knowledgeable about the city who would like to make connections across spaces to visitors who arrive there curious to explore how the city changed over time. The app would include interactive material, video, text, and audio in the form of voice narration using the image itself as the interface to explore the history of Venice and its importance to the world, past and present. This material was first featured at Duke's Nasher Museum in Fall 2017 and will now form part of a permanent re-installation in the Correr Museum of Venice, Italy with a potential audience of over a quarter million visitors per year. (CONTACT: Kristin Huffman, kristin.huffman@duke.edu or stephen.toback@duke.edu)

Other ideas

7. **Sakai for Apple TV.** Programming for Apple's tvOS is just like programming for iOS, except the display is a TV instead of an iPad or iPhone. Apple TV boxes are becoming standard across campus, so it is logical to create a native Sakai app for this platform. With "Sakai for Apple TV," a user will be able to go into any classroom or conference room with an Apple TV and bring up their content without need for attaching a laptop. NOTE: We already have a prototype of Sakai for iOS that can be used as a base. Apple TV will be provided. (CONTACT: RIC TELFORD)
8. **SwiftCodeGen.** An app that runs on the iPad for designing and saving UI controls for use in an iOS app. The idea is an iPad app that has a control panel on the left and a visual panel on the right. As you tweak knobs and info on the control panel, you design and visualize custom controls – buttons, sliders, text boxes, etc. Once you are satisfied, you save and it creates a closure expression that can be cut/pasted into code (CONTACT: RIC TELFORD)
9. **DukeWalks.** Make walking fun! This is an app that allows the user to ask for a "walk." The app shows them a picture of something on their side of campus (need GPS location here) that is in reasonable walking distance. The person has to then walk to that location – the app recognizes when they are close and congratulates the user and shows them a step count, calories burned, total mileage, etc. So many additional possibilities to add to this as well to make it even more functional. (CONTACT: RIC TELFORD)