**My idea is to build an app that will alert emergency services and contacts in the event the user suffers a hard fall. This will be especially handy for older people who are by themselves at home. By providing a mechanism to detect and alert people in the event of a fall, they can feel safe and secure in their own home and can retain their independence. By using machine learning combined with on-device sensors, we can create a model that can accurately predict whether a hard fall occurred and based on that take action.**

*Describe in 250 words what the feature or service will do and how you’ll use Machine Learning to push the bar:*

**I plan on bringing this app to life, by combining an android foreground service + tensor flow lite. By leveraging on-device machine learning. We can have an always-on service listening and processing device sensor data to accurately determine whether a fall has taken place.**

**I have not written any sample code, however, as an android engineer with numerous production apps on the play store, the real challenge here is the machine learning, not the application part. I am currently working through the fast.ai course which should equip me with the machine learning skills required to build this application.**

**I could use Googles help with model building, testing, and validation. Since I am relatively new to ml, I am sure the google team would be able to help point me in the right direction when working on the ml model.**

**As for the timeline:**

**December - January - Basic app shell to test model + Initial model creation**

**January - March - Improve model to production quality + initial beta test**

**March - April - Bug fixed, polishing app shell, test at scale**

**May - Release!!!**

**I am a 21-year-old self-taught android engineer. I have experience with java, kotlin, android, c# and python. I am very passionate about the mobile space and love clean well-architected and elegant solutions. As a regular listener to the Android Developers Backstage podcast, I enjoy working with the application layer of android just as much as I enjoy working with the internals and love the openness of the android platform.**

**I have worked on numerous production android applications. Here are 2 of them for your perusal.**

**1.**[**Smart Zmanim**](https://play.google.com/store/apps/details?id=com.wyre.zmanim) **- Deep integration with android os. Quick Settings, widgets, printing, app shortcuts, wear os, and much more.**

**2.** [**Teffilas Haderech**](https://play.google.com/store/apps/details?id=com.wyre.teffilashaderech) **- Offers the traveler prayer in 3 formats, + audio.**