



Please make a copy of this document and include this in your GitHub repository for your submission, using the tag #AndroidDevChallenge

Tell us what your idea is.

Have you ever thought about the importance of plants in our life and what would happen if a crude disease would make them all sick and we would run out of them? A possible scenario would be that the world's population will remain without food and thus we will need to find new resources from which to feed. Moreover, we will no longer find drugs, furniture, cosmetics because plants are important resources in these industries. Without plants there would be no life. But, let's get back to better thoughts and see how we can prevent this. I propose an application that helps farmers to identify the disease of the plant and recommends the best treatment for it. And because it sounds like magic, how can it be done other than with ML? We can combine the power of Machine Learning together with the power of mobile devices like smartphones and drones to develop intelligent agents that identify and treat plant diseases.

Tell us how you plan on bringing it to life.

Describe where your project is, how you could use Google's help in the endeavor, and how you plan on using On-Device ML technology to bring the concept to life. The best submissions have a great idea combined with a concrete path of where you plan on going, which should include:

- (1) any potential sample code you've already written,
 - (2) a list of the ways you could use Google's help,
 - (3) as well as the timeline on how you plan on bringing it to life by May 1, 2020.
- (1) *I developed so far an Android application that recognize plant diseases from images and recommends a treatment for it. The workflow of my app is as follows:*
- The user can upload a photo or take a picture of a plant,
 - The request is sent to a server, where a Neural Network model recognize the disease of the plant
 - The response is sent back to the Android app and displayed to the user
- (2) *Google can help me with:*
- (a) *Guidance to run the Neural Network model directly on device*
 - (b) *Guidance to scale my application to a large number of devices*
 - (c) *To create a large database of Plant Diseases in the wild in order to improve the Neural Network model*



(3) *Timeline:*

- (a) *Deadline January - Integrate ML model to device*
- (b) *Deadline February - Upload the app in Google Play*
- (c) *Deadline May- Scale the application*

Tell us about you.

I am Andreea and I graduated Bachelors of Engineering last year. I like playing with ML and to contribute to innovative projects. I have some basic knowledge in Android application development also. I never integrated a neural network model to run directly on a device, but think it is really cool and I want to learn to do this.

Next steps.

- Be sure to include this cover letter in your GitHub repository
- Your GitHub repository should be tagged #AndroidDevChallenge
- Don't forget to include other items in your GitHub repository to help us evaluate your submission; you can include prior projects you've worked on, sample code you've already built for this project, or anything else you think could be helpful in evaluating your concept and your ability to build it
- **[The final step is to fill out this form to officially submit your proposal.](#)**