



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.

My app idea is to use computer vision and machine learning to simplify renewing or buying your fishing license online. Instead of filling out a long and complicated web form on a site not optimized for mobile. I want to build a conversational style app (think google assistant) that will ask to see your previous fishing license if you are renewing or your driver's license if you are buying your first fishing license. Then the app will attempt to fill out the needed info to complete the transaction for you. If any additional info is needed, the app will ask a few additional questions to gather more information and try again.

Tell us how you plan on bringing it to life.

This project is in the concept phase. I have created UI mockups to outline the idea and serve as a guide to limit the scope of the project. My plan is to use ML kits ODT, text recognition, and barcode scanner to make it simpler, easier, and quicker to buy your fishing license online. Instead of filling out a web form on a mobile device, isn't it easier to have a conversation with an app. As the text recognition gets better and better the number of questions the app needs to ask should decrease. Hopefully only the fewest number of essential questions will be asked by the app. This should provide the user with an experience that is similar to buying a fishing license in person without some of the annoyances of having to drive to the store or waiting in a line.

I plan on using ML kits ODT and text recognition technology to gather as much of the fishing license information as possible from an existing fishing license. If the user doesn't have an existing fishing license then the plan is to use ML kits barcode scanner to collect personal information from a driver's license. For any information not collected via machine learning the fallback is to ask the user questions and use the answers to supplement the data collected.

I could use Google's help with the following things:

- building a ODT classifier for fishing licenses
- integrating ML kits text recognition api into the app
- configuring a barcode scanner for driver licenses

The plan is to bring this app to life in a timely manner by limiting the feature set initially and iterating as much as possible until May 1st 2020. The following is a timeline of deliverables broken out by month.



End of December:

- Initial release candidate of the app without ML that demonstrates purchasing a license online

End of January:

- Proof of concept prototype of the machine learning functionality

End of February:

- Functional prototype of machine learning functionality to be included in the app

End of March:

- Initial release of app to play store

End of April:

- Updates, refinement, iterate as much as possible.

May 1st

- Celebrate

Tell us about you.

Hello my name is Eric Harlow. I am an Android app developer. I have 9+ years experience working on Android applications. I have worked on a couple apps that have made it to market as well as one that didn't. I currently work on a library app called hoopla.

https://play.google.com/store/apps/details?id=com.hoopladigital.android&hl=en_US.

Before that I worked on the early stages of a communication app called Beartooth.

https://play.google.com/store/apps/details?id=com.beartooth.bronco_beta&hl=en_US.

Before that I spent 7 years on an app that used bluetooth to control LED message boards used by state DOTs in the US and Canada. This app was never intended to be distributed on the play store and ultimately android devices were removed from this project for a more customizable and durable device.

My Linkedin account can be viewed here. <https://www.linkedin.com/in/ericharlow/>

I haven't contributed to many open source projects, but a couple of my old projects are on github. My handle is @ericharlow

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.](#)**