Tell us what your idea is.

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

Download a porn blocker in 2017 and you have software that shows you either a blank page or a "Page blocked" screen when attempting to visit an adult site. If you're a user that is experiencing somewhat intense desires, these successful demonstrations of blocking may end up encouraging you to uninstall the blocker, access porn on a different device, …., pent up the desire into frustration or another detrimental reaction, and so on.

Install PorNo! –– a porn-blocker I built –– in 2018 and you have a tool that, instead of showing a "Page blocked" screen, will redirect users to a new site of good / inspiring / "pure pleasure" content in an attempt to provide an outlet for a user's sexual feelings. In addition to being the only porn-blocker on marketplaces that offers this service, the algorithm source code is the first open-sourced repository [for URL-based detection].

PorNo! Is successful (2600+ users on Chrome, 100K+ installs for Android) but there is an issue…PorNo! uses a database of *known* porn domains to "detect" if a site is pornographic and new porn sites get added at a rate that is very inconvenient for anyone to invest time in looking for. Unless these sites get discovered and added to the database, PorNo! will not redirect from them!

With machine learning, I want to teach PorNo! what a porn site "looks like" so that PorNo! Can analyze and judge websites "on the fly", providing PorNo! independent growth and functionality.

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) SAMPLE CODE:

PorNo! detection algorithm (JavaScript)

PorNo! Chrome extension partial source (JavaScript)

PorNo! Android (Java)

(2) WAYS I COULD USE GOOGLE'S HELP:

Machine learning: I would benefit from learning about how machine learning works, how to go about building and deploying effective models given my desired behavior, and optimizing the model for mobile devices via TensorFlow Lite [or a more appropriate Google ML service for mobile devices]

Android app architecture and performance: PorNo! figures out the current URL on Android Google Chrome via the accessibilityNodeInfo class -- this is done via depth-first search, a time-costly algorithm for an API that is very easy to access in web environments (window.location.href...). As such, I would be very happy to work with Google to better optimize the app's approach and performance to getting page URL data to provide a faster redirect experience to users

(3) TIMELINE:

March 2018: I began work on the Chrome extension version of PorNo!

June 2018: PorNo! Is first released to the Chrome web store and the code is made available on my GitHub

November / December 2018: I began work on the Android version of PorNo!

January 2019: PorNo! is released to the Google Play Store with the code again being made

available on my GitHub

　　　-- PRESENT DAY --

　　　December 2019: I fill out the application for the Android Dev Challenge to incorporate ML into PorNo!'s detection algorithm with help from Google

　　　December 15, 2019: Decisions are released

　　　Winter break 2019 - 2020: Gather the HTML data of the homepages (or whatever data Google would recommend I use) of the porn sites from the database and use that to build and train a model and add a model that can assess the pornographic-ness of images to gather another "opinion" from for PorNo!

　　　January, February 2020: Continue to test and improve the machine learning model for PorNo! and review performance with Google

　　　March, April 2020: Work on optimizing the Android version to query Chrome webpages faster and work with Google parsing accessibilityNodeInfo in faster and more reliable ways than I currently do (the current performance for Android PorNo! Is 8x faster than the initial proof-of-concept but some porn sites still have time to load content before PorNo! redirects, to add context)

　　　April 2020: Successfully publish the machine-learning enhanced Android version of PorNo!

　　　May 1 2020: Share the new, evolved and independent PorNo! with users and my social media, share the code on my GitHub, and get spotlighted through Google

Tell us about you.

A great idea is just one part of the equation; we also want to learn a bit more about you. Share with us some of your other projects so we can get an idea of how we can assist you with your project.

Hi, I'm Vivek Bhookya (@mrvivacious). My hobbies include writing reflections / poetry / code, dancing, spending time with family and friends. My favorite color is pink and my favorite drink is either hot chocolate or chocolate milk, depending on my mood.

The majority of my programming experience is in web and voice development. A few of my projects:

[Magical Messages](#) - My first project!

[mrvivacio.us](#) - A website about me and some of my experiences

[LikeFree](#) - Hiding likes before Facebook and Instagram (also, my first Chrome extension!)

[Share Love](#) - A tutorial I wrote about building an Alexa skill to send positive messages to loved ones

[PorNo! Chrome extension](#) - An attempt at creating the last porn blocker anyone will ever need

[SpeedDial](#) - Chrome extension that offers free one-click dialing to national and state emergency hotlines

[PorNo! Android app](#) - PorNo!, for Android

[HappyBirthdayAutomated](#) - Toy Android app that automatically texts people "Happy birthday"

In progress and future projects - Check my Github later, ha ha ~

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.](#)**