



My Idea is to create an app named: Sexify

While going shopping, we have a hard time figuring out what type of jeans would match the sneakers that I have. Or, what color shirt would go along with a rugged style jeans.

People everyday struggle to pick their outfits. They're unable to figure out what Shirt to wear with their black trousers or what Jeans would look good on Tan colored sneakers! This is one of the many problems we face each day.

Or if they already have figured their outfit, they struggle hard to try new fashion/ new type of clothing. They hardly experiment with their taste. They might have all the pieces required to create a new outfit in their wardrobe, but they can't seem to figure out what to match with what.

Same thing can be applied to **shopping for apparels**. Which Top would match the jeans that I already have, or the type of shoes that would go with my jeans.

I plan on creating an application which solves this everyday problem for billions of people. Once it works well for apparels, this app can be extended to match, curtains, wall paint and anything that the user wants.

User would just have to click a picture of their existing apparel and we would provide them with a range of recommendations that would match their style. **Things such as a person's height, weight and size could also be included later on and we could train our model such that it incorporates it all.**

Tell us how you plan on bringing it to life.

I tried creating this app using Google's Cloud Vision API and also published it in Beta on Google Play but never released it to production since the recommendations weren't that awesome!

What I did was:

- Asking user to click a picture of their existing apparel.

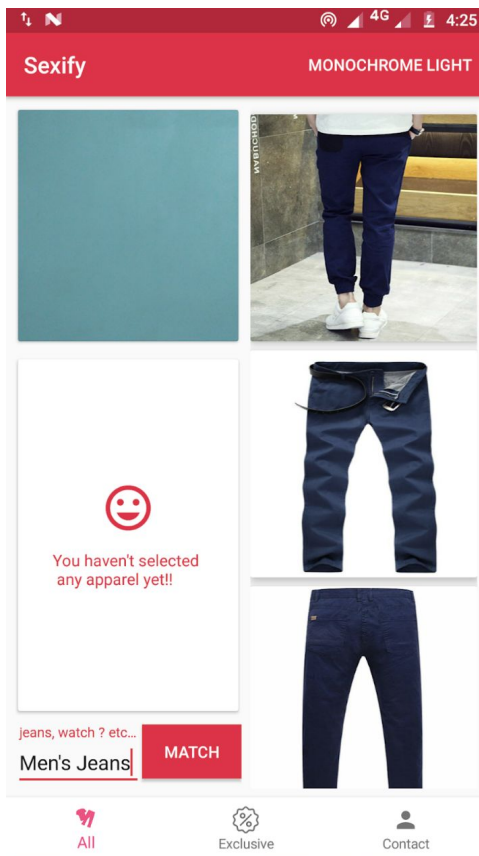


- Using Google's Cloud Vision API to find the dominant colour in the image.
- Used a free color matching API which suggested me the right color for the submitted color. It also had color schemes such as Contrast, chromatic etc...
- I had to convert the color's hex code to color's name. This wasn't perfect because I just mapped a bunch of color names to their nearest hex codes.
- I asked the user what they wanted to match and using that text, I appended the color and loaded the images.

Here is the link to Beta version of the app:

<https://play.google.com/store/apps/details?id=com.ayusch.sexify>

Also attaching a screenshot.





How I would use Google's help?

The main pain points in my previous attempt were:

1. Determining the matching color
2. Finding out the matched color's name from the hex/color image sample.
3. Using machine learning to find out the best images from millions of images on the internet.
4. I would extend the app to create a Wardrobe from an existing selection of apparels that user has. This would require quite a bit of machine learning.
5. **Including features in matching such as Height, Weight, Size of the user.**

I could really use some help and mentoring from Google's experts to create this application and would like to really take this idea forward and grow it big!

TimeLine:

- After results are announced on the 15th December. Rest of the month would be spent on discussing with the mentor best architecture of the app, **the best ways to incorporate on-device machine learning** for this.
- Early January, would be spent on brainstorming on using an existing model or training a new one. ML kit or tensorflow lite. These decisions would require some time.
- Rest of the month would be spent in deciding how to incorporate that model into the application.
- Early February I would **chart out** the plan including the **application's flow**, some UML diagrams and any other corner cases that need to be thought upon. Also deciding what features to have and not-have in the app.
- Starting the development work from early February.
- Rest of the time would be spent on training the model + development of the app.
- 1st May showcase.

Tell us about you.

I started Android Development as early as the first year of my college. Since then, I've been deep into android development and have completed many internships/projects in Android. I'm really passionate about android development and want to build a career as an Android Engineer.



I maintain an online community of Android Developers named **AndroidVille**. I started this community last year and in less than 1 years time it grew over to 1000+ members. We have a slack channel and a newsletter. Recently, we started a Quora Space named **Mobile Development** which has 1.5K followers as of this writing.

I write about Android Development on my website: <https://ayusch.com> which has garnered good response all over the world. I've also written for publications on Medium such as **HackerNoon**, **freeCodeCamp**, and **proAndroidDev**.

All the details about my projects and my apps can be found on <https://ayusch.com>