

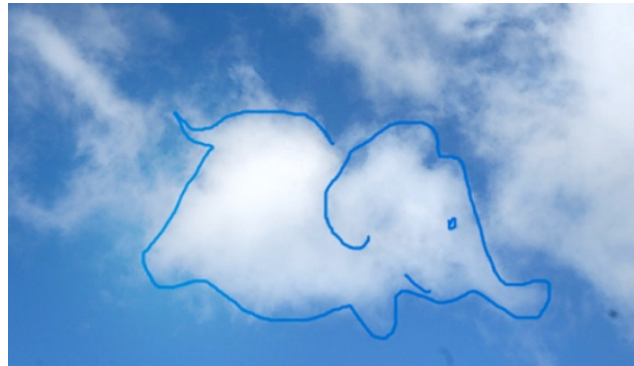


Funny Cloud

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1. Concept

We had the idea of Funny Cloudy after trying to classify images of clouds with MobileNet. Usually, the predictions are “volcano”, “geyser” or “parachute”. It can make sense if we think rationally, but when they are seeing clouds, humans try to associate them to shapes or silhouettes. We had found a use and a misuse of MobileNet and Artificial Intelligences in general.



Funny Cloudy is a web page using MobileNet pre-trained network. With this project, we want to show the limits of AI. Indeed, Funny Cloudy allows users to upload an image of clouds and see what MobileNet predicts it is. But it is rarely what the user himself imagines, so he can write it and save the data in the shared library.

It is funny because we ask an AI and the user can see what the others imagined in the cloud. Besides, imagining shapes in the clouds relate to childhood, and it is poetic. It's a reminder of a child's game : Guessing the cloud's shape.

Images collection with what users see could permit the creation of Artificial Imagination.

2. Algorithmic approach

For building the website we used HTML, CSS, JavaScript, the libraries P5 and ML5, and a Firebase.

The webpage is fully designed and presents interactive features. For example, with CSS, we implemented clouds animations.

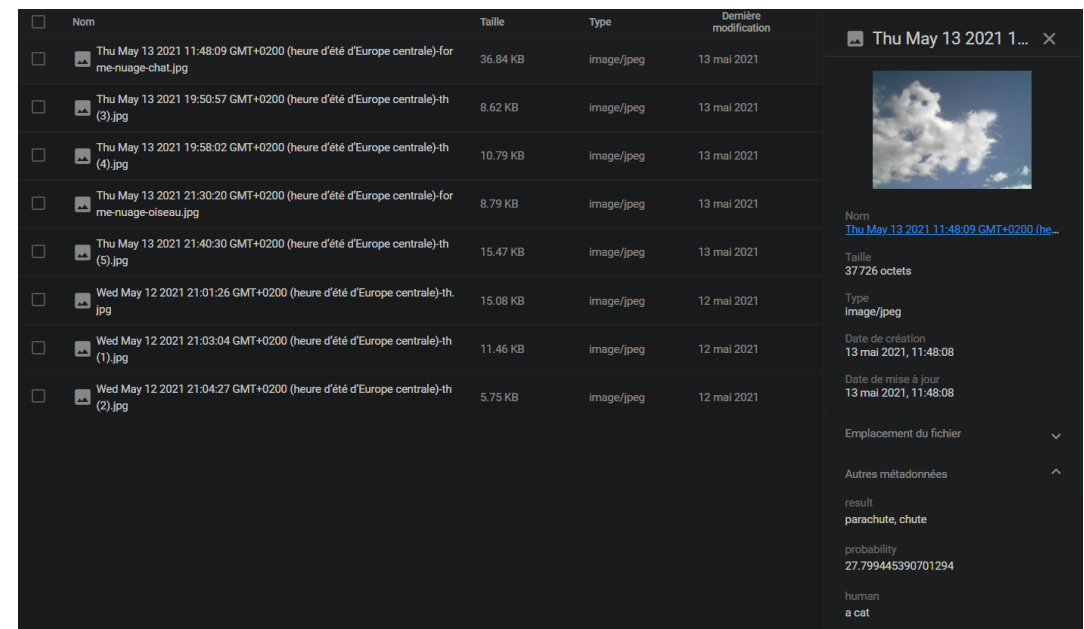
With JavaScript and P5, we wrote functions for drag and drop, or upload an image from personal folders. We also created the actions of the inputs.

We used the library ML5 for the Image Classification with Mobilenet.

Firebase permits us to upload a new image and retrieve all images with the user seeing and AI prediction in the page library.

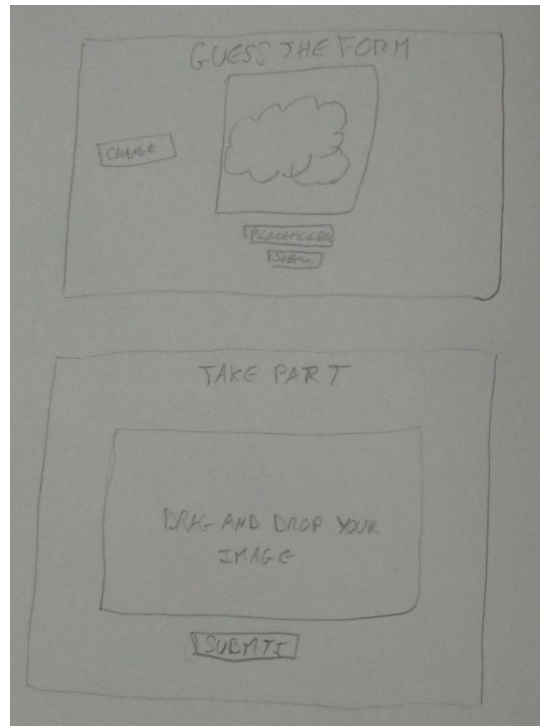
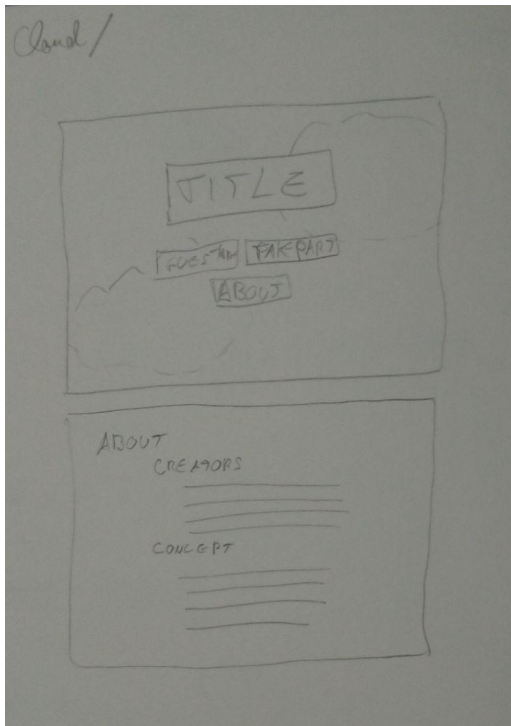
Indeed, Firebase is a set of hosting services for any type of application (Android, iOS, JavaScript, Node.js, Java, Unity, PHP, C ++ ...). It offers hosting in NoSQL and in real time databases, content, social authentication, and notifications, or even services, such as for example a server of real time communication. It belongs to Google.

We used Cloud Storage which permits storing files. When a user saves an image, we choose to add it the name: Current Date + original name. This allows us to not have images with the same name in the database. We also add what the user sees and the Mobilenet prediction in the metadata to retrieve it easily.



3. Aesthetics

For the site, we decided to use colours that reminded us of the sky and clouds, so we have several shades of blue and white for the different elements. In addition to using blue for the symbolism of the sky, we also used it for the fact that it symbolises dreams.

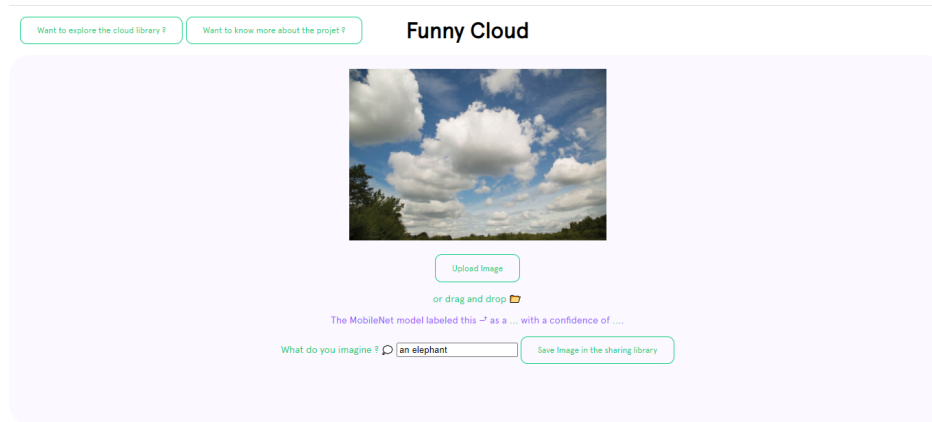


Sketch First Version

This version was drawn at the beginning of the project when we had not yet started coding. We already had the idea of making several pages but these are different from the current version.

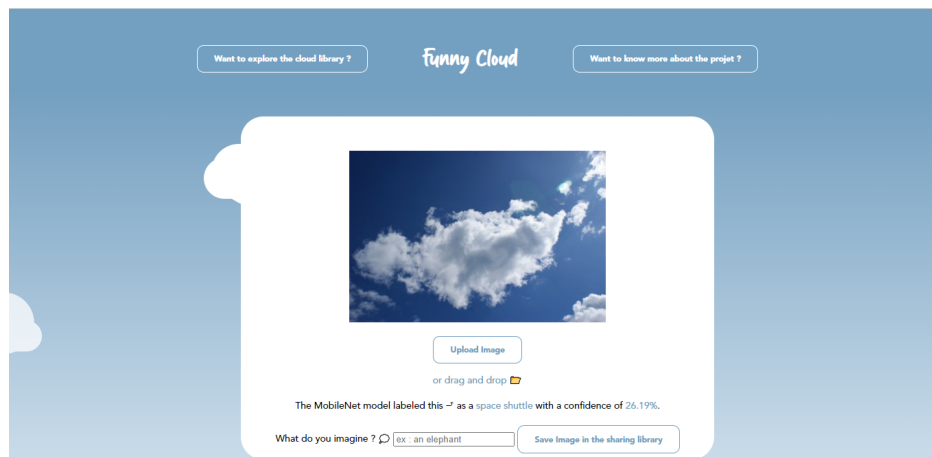
We wanted to have a page for uploading photos, one where the user writes what they see in a cloud and the last one about the creators and the concept of the project.

We also intended to put clouds in the background to immerse the user in the site's universe.



Second Version

The second version is quite different from the one that was drawn on paper. We have chosen to gather the image upload and the user prediction at the same time. We also added a page where users can view all uploaded images as well as MobileNet and human predictions. As this is a test version, we had not yet integrated the final colours, that's why you can see green and purple.



Final Version

The final version has all the pages we wanted : home with upload, image library and about page. We also added an animation in the background to make the site more lively. This version also has the right colours unlike the second one. You can also see that the title font is different from the previous version. We used a font called **Wildstripe** because it had a poetic feel thanks to its handwritten look.

Wildstripe

4. Work Steps



At the beginning of our project, after having found our concept, we looked for different images to illustrate it and to have examples on which to test MobileNet. We found some good examples on the Internet but we mainly used the ones from the article “ [Qu’est-ce que tu vois dans ces formes de nuages?](#) “. The clouds can have animal shapes like cat, dog, birds and we also saw that some artists draw the form that they saw. It was funny because in addition to the animal forms, some saw fictional characters like Snoopy or mythical creatures like dragons.

After finding these images, we used MobileNet to see what predictions the model gave us. For this we used the code that we had made our first steps with MobileNet in class. Then we tried to get the first prediction proposed for the image to display it in a sentence.

Then we came up with the idea of allowing the user to upload a cloud image so that they could see what MobileNet found. We also thought of allowing the user to write down what he saw in his picture to compare it with MobileNet’s result. From this came the idea of making a database storing the images uploaded by the users as well as the predictions of the latter and MobileNet on the latter to see the difference between the two. This is also when the library page was created. On this page, the user will be able to see the predictions of MobileNet and humans for each image that has been uploaded.

We did some research to find out how to make a database with p5 and came across a [YouTube](#) video from The Coding Train which helped us a lot to do what we wanted. We also found a way to allow the user to drag and drop an image instead of uploading it and to do this we also looked for a tutorial that we found on the same channel.

Github link : <https://github.com/angeli-dev/projet-mobilnet>

Funny Cloud URL : <https://www.angeliquelebas.com/projet-mobilenet/index.html>