

PragyanCTF Ste - Lost Friends (300pts)

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Challenge:

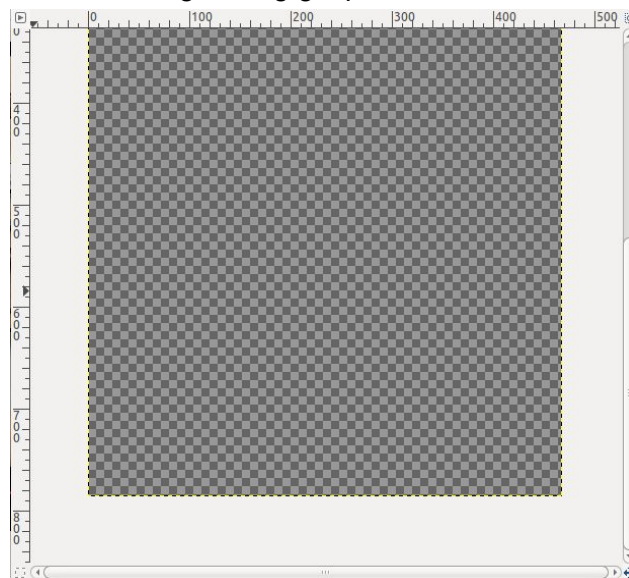
“Moana and her friends were out on a sea voyage, spending their summer joyously. Unfortunately, they came across Charybdis, the sea monster. Charybdis, furious over having unknown visitors, wreaked havoc on their ship. The ship was lost. Luckily, Moana survived, and she was swept to a nearby island. But, since then, she has not seen her friends. Moana has come to you for help. She believes that her friends are still alive, and that you are the only one who can help her find them.”

Provided image:

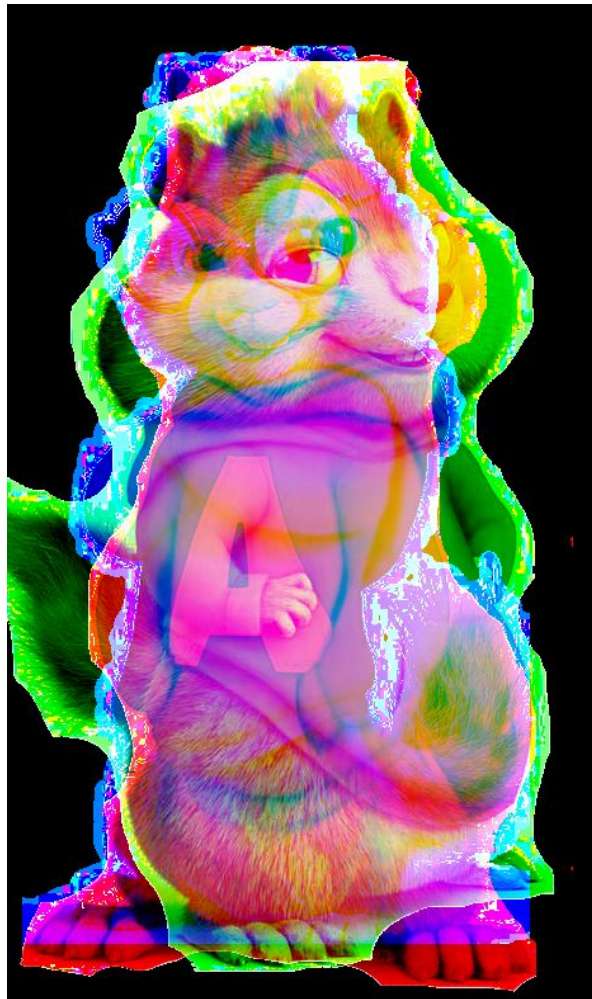
Lost_friends.png (Image is completely white/blank)

Solve:

With the provided image being blank, I began by using a series of tools to confirm if the file is in fact a png image. The tools used: file, pnginfo, pngcheck, pngchunks, xxd, strings. While the tools confirmed that the file is a png image file, pngcheck told me that there is extra data after the IEND marker of the image. So I used strings and xxd to look at the end of the file. This revealed the hint “Psssst, Director, maybe ??” The challenge description talks about Moana, which is a movie that recently came out, so I tried the director of that movie as my flag; no luck. Moving on, I opened the image using gimp.



Here we see that the image is completely transparent. Pnginfo had confirmed that the image had a color type of: RGB with alpha channel. Using my python script pngedit.py, found in my github ctf/tools folder, I was able to change all the pixels in the image to fully opaque.



Now I see that the lost friends are Alvin and the Chipmunks. With this being another movie, I proceed to try the director as the flag. But there are multiple Alvin and the Chipmunks movies; which director is the flag? Well, the challenge description mentions a shipwreck, and there just happens to be an Alvin and the Chipmunks “chipwrecked” film. Using the director of that movie and I got the flag:

pragyanctf{MikeMitchell}