online CTF 2024

SHERLOCK 1 & 2

In today's digital landscape, online treasure hunts blend cryptography with problem-solving through social media trails. This write-up follows one such adventure, beginning with a Twitter account and uncovering hidden flags across the web.

Step 1: The Riddle and Twitter Account

Our journey begins with a riddle:

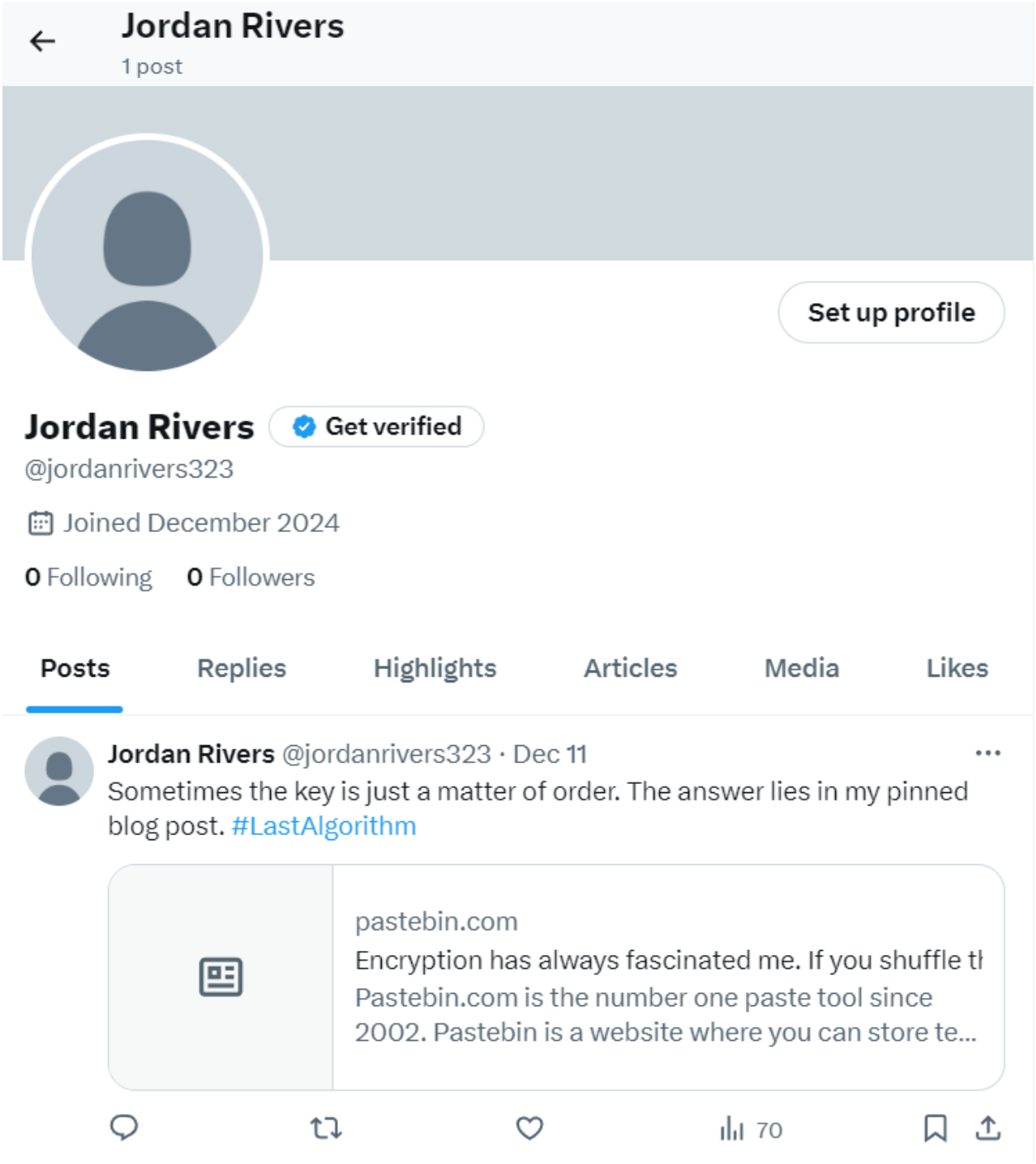
I'm Jordan Rivers, @jordanrivers323, a name you'll see,

A chirping bird's domain, wild and free.

A basketball court, a flowing stream,

A social media star, a vibrant dream.

This riddle leads to a Twitter account with the username **@jordanrivers323**. On the account, we find a post containing a Pastebin link.



Step 2: Decoding the First Flag

The Pastebin link reveals our first encoded flag in **ROT13** format. To decode it:

1. Access a ROT13 decoder online or through code

2. Enter the encoded string
3. Obtain the decoded flag (e.g., FLAG{example1})

Below the first flag, we discover another clue—a riddle referencing **GitHub** and a Base64-encoded repository link.

Step 3: Decoding the GitHub Repository Link

To access the GitHub repository:

1. Use a Base64 decoder tool or script
2. Decode the encoded link
3. Visit the resulting GitHub repository URL

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 Encryption has always fascinated me. If you shuffle things just right, the truth emerges.

Flag1:vbgpgs{EBG_EBPXF!}

Next Stage Hint:

I am a vast digital land,
Where code and knowledge firmly stand.
A place for builders, dreamers bright,
To share their work, day and night.

But wait, there's more to this story,

A hidden message, veiled in glory.
Encoded secrets, can you see?
Decode the baseXX, and set your mind free.
Here's a clue, a starting line:
aHR0cHM6Ly9naXRodWIuY29tL0pvcmRhblRoZUJsb2dnZXIvVGhlTGFzdEFsZ29yaXRobS8=

Can you crack the code, and find the shrine?
```

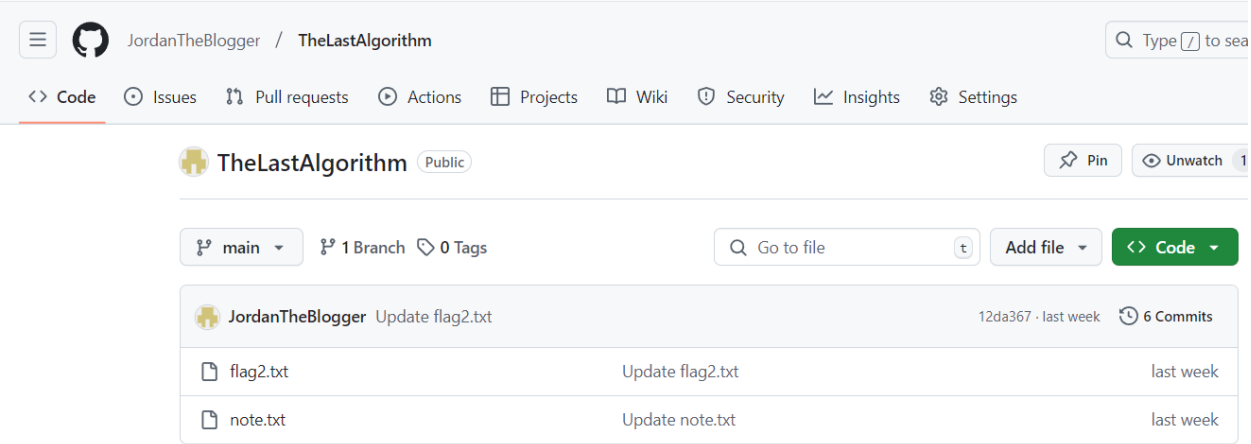
Step 4: Decoding the Second Flag

The second flag uses this encryption sequence:

1. Reverse the string
2. Apply ROT13
3. Base64 encode

To decrypt the flag, reverse these steps:

1. **Base64 Decode:** First decode the Base64 string
2. **Reverse ROT13:** Apply ROT13 decoding
3. **Reverse the String:** Flip the characters to reveal the flag



Example Decryption

Here's a simple example:

- **Original Text:** hello
- **Reversed:** olleh
- **ROT13 Applied:** byyru
- **Base64 Encoded:** Ynl5cnU=

To recover the original text (hello):

1. Decode Ynl5cnU= from Base64 to get byyru
2. Apply ROT13 decoding to get olleh
3. Reverse the string to reveal hello

Apply this same process to decrypt the second flag in notes.txt.

Conclusion

This treasure hunt showcases cryptographic techniques like ROT13, Base64, and string manipulation in action. It demonstrates how digital breadcrumbs can create engaging puzzles, while systematic decoding transforms complex challenges into solvable problems.