You find what looks to be a regular PDF, maybe Didier Stevens can help figure out what it contains.

Solving

To solve the challenge, I conducted some recon on the pdf using pdfid to check the content stream of the image.

Command

Pdfid Paper.pdf

```
obj
endobj
stream
endstream
xref
trailer
startxref
/Page
/Encrypt
/ObjStm
/JS
/JavaScript
/OpenAction
/AcroForm
/JBIG2Decode
/RichMedia
/Launch
/EmbeddedFile
/Colors > 2^24
 [mystik0ri0n@mystik0ri0n]-[~/Downloads]
```

As shown on the image, there is an embedded file inside the pdf stream. Now, to investigate the pdf stream.

command

pdf-parser paper.pdf

The image shows that the embedded file is in the stream for obj 8 and compressed with flate. So to how I extracted the file from stream. Using pdfparser I can extract the stream at obj 8 and then using '-f' flag for flate decompress and '-d' to decode and then append the output to a file.

command

```
File Edit View Search Terminal Help

obj 8 0
Type: /EmbeddedFile
Referencing:
Contains stream

    /Length 43
    /Filter /FlateDecode
    /Type /EmbeddedFile
>>

xref

trailer
    /Size 9
    /Root 1 0 R
>>

startxref 1006
```

UMDCTF-{actually_1ts_pr3tty_smart}
This program has not been tested with this version of Python (3.9.2)
Should you encounter problems, please use Python version 3.8.7

The flag was **UMDCTF-{actually_1ts_pr3tty_smart}**