Code Breaking with Statistical Physics

March 31, 2022

[4]:
```
import string

ALPH_1 = string.ascii_uppercase + " "
message1 = "GPKZFER JRSER EKWIGIWKWVRZ YZRCWMWCRSEVRYWEWISCRGLIGFJWRGIFYISDD␣
 ↪EYRCSEYLSYWRGPKZFEJRVWJ YERGZ CFJFGZPRWDGZSJ QWJRUFVWRIWSVST C KPRN KZR␣
 ↪KJREFKSTCWRLJWRFXRJ YE X USEKR EVWEKSK FER␣
 ↪KJRCSEYLSYWRUFEJKILUKJRSEVRFTAWUKRFI WEKWVRSGGIFSUZRS␣
 ↪DRKFRZWCGRGIFYISDDWIJRNI KWRUCWSIRCFY␣
 ↪USCRUFVWRXFIRJDSCCRSEVRCSIYWRJUSCWRGIFAWUKJ"


def caesar_invert_shift(letter,shift,alphabet):
    m = len(alphabet)
    p = alphabet.find(letter)
    return alphabet[(p-shift)%m]

def caesar_decipher(message,shift,alphabet):
    length = len(message)
    m = len(alphabet)
    original_message = ""
    for i in range(length):
        original_message += caesar_invert_shift(message[i],shift,alphabet)
    return original_message

print(caesar_decipher(message1,18,ALPH_1))
```

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PYTHON IS AN INTERPRETED HIGH LEVEL AND GENERAL PURPOSE PROGRAMMING LANGUAGE
PYTHONS DESIGN PHILOSOPHY EMPHASIZES CODE READABILITY WITH ITS NOTABLE USE OF
SIGNIFICANT INDENTATION ITS LANGUAGE CONSTRUCTS AND OBJECT ORIENTED APPROACH AIM
TO HELP PROGRAMMERS WRITE CLEAR LOGICAL CODE FOR SMALL AND LARGE SCALE PROJECTS
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