

NETWORKS AND CRYPTOGRAPHY — PROJECT 3

Crytanalysis, take II

1 Part A: A needle in a haystack

To get started, login to the department systems, obtain a directory of files, and change into it, like so:

```
$ tar -xvpf ~sfkaplan/public/COSC-281/project-3.tar
$ cd project-3
```

In this directory, you will find 16 files of the same length. All of them look, superficially, like random gibberish. However, **one** of them is, in fact, a file encrypted using the *substitution cipher*, while the others are, in fact, a sequence of random values. **Your task** is to find the real ciphertext and to decrypt it; the decrypted message will contain instructions that explain how to get started with Part B.

2 Part B: Vigenère cipher

In solving Part A, you will find instructions that lead you to another ciphertext—one formed using the Vigenère cipher. **Your task**, as you might have guessed, is to decrypt that message. You will readily notice that the ciphertext is long, providing sufficient opportunity for the cryptanalytic techniques we discussed in class.

This assignment is due at **11:59 pm on Sunday, April 14.**