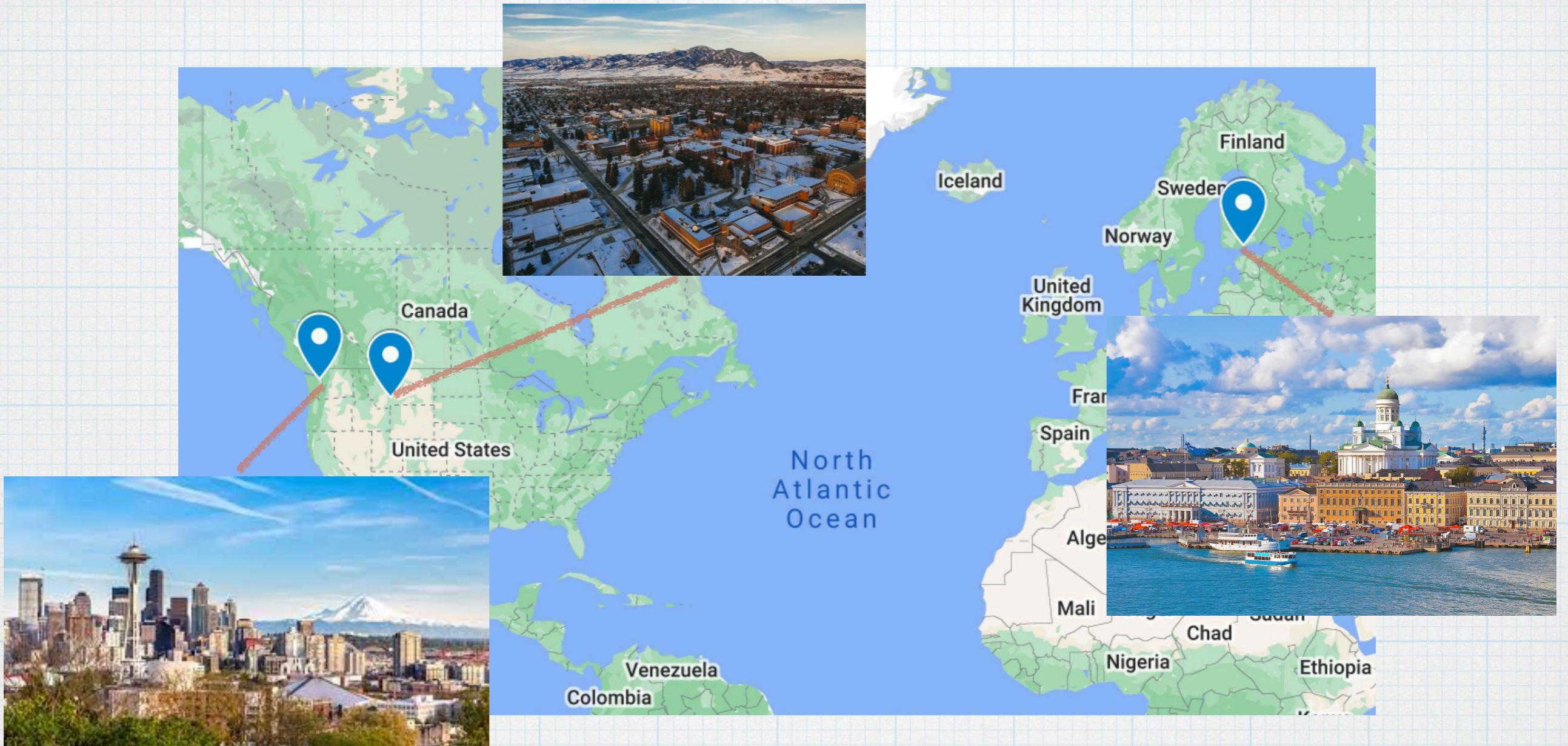


# Data Breaches

What they are & what you can do to prevent them

Lucy Williams  
Teaching Demo, October 25, 2021



Undergraduate: Applied Math  
Industry: Data Scientist  
PhD: the computer science behind DNA sequencing

# Learning goals

- \* Understand what data breaches are
- \* Learn concrete steps you can take to prevent them

# What is a data breach?

Exposure of confidential, sensitive,  
or protected information to an  
unauthorized person

# Examples

- \* Equifax, Yahoo, Facebook, ...
- \* Ashley Madison, Adult FriendFinder
- \* VTech
- \* Missouri State Education website
- \* List of data breaches

# Poor security practice

# Sophisticated hack



Missouri  
education  
website

Equifax  
Facebook  
Adult  
FriendFinder

Ashley  
Madison

VTech

SolarWinds

# What can you do?

- \* Check Have I been pwned?
- \* Check Pwned Passwords
- \* Use a password manager! LastPass is free
- \* Use multi-factor authentication
- \* Keep your software up to date
- \* Study computer science and computer security

A photograph of a person sitting on a rocky mountain peak, viewed from behind. The person is wearing a blue hoodie and dark pants. They are looking out over a vast, cloudy sky. In the foreground, there are large, light-colored rocks. The background shows more mountain peaks.

Thank you!

Find me at:

[lgw2.github.io](https://lgw2.github.io)

357 Barnard Hall (in the  
spring)