Problem

- British Columbia Centre for Disease Control (BC CDC) currently monitors **over 60** diseases, including COVID-19.

- It requires **highly experienced staff** to continuously monitor and decide whether a reported disease count is **higher than expected** for each of the 60+ diseases.

- This process is too **costly** and **fallible**.

Solution

- In collaboration with BC CDC and School of Population and Public Health, I developed an **automated method** for detecting disease outbreaks (my MSc thesis under the supervision of Prof. Matias Salibian-Barrera).

- **Goal 1:** **To develop a vis tool for decision makers at BC CDC.**

- **Goal 2:** **To provide a prediction functionality using ML.**

Data

- BC CDC data is not open to general public.

- I will use open data from the US: **Project Tycho**.

- The data type is a table. It has the following attributes:
  - Time
  - Geographical area (states)
  - Disease count (mostly weekly)
  - Disease type
  - Derived attributes

Software/platform

- The method is implemented in **R** and **C++**.

- A prototype vis tool is made in **ShinyApp;** I am open to other tools.

Interested?

- I am looking for one partner.