

Data Empire

University of Toronto Mississauga – Group name: The Predictors

ECCE App Challenge 2020

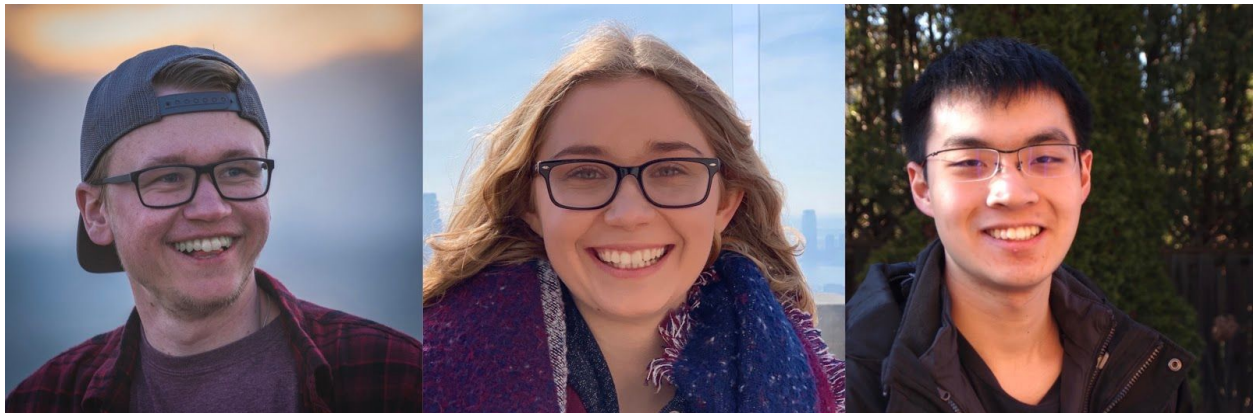
Team Members

Pawel Migdal, Scarlett Rakowska, Ryan Wong

Mission Statement

The goal of **Data Empire** is to advise people of the potential spread of COVID-19 in Canada. Applying our model to our web app can show individuals the projections of this pandemic. Our goal is for people to visually see the numbers of the growing spread and rethink their actions and to stay at home. We hope that individuals view our map and become aware of taking strong personal measures and staying at home can help decrease these numbers.

Team Member Bios



Pawel Migdal (left): I am currently in my third year at the University of Toronto Mississauga. I am doing a double major in Mathematics and Computer Science. I am also doing a minor in Geographical Information Systems (GIS). My hobbies include photography, skiing and snowboarding.

Scarlett Rakowska (middle): Currently, I am in my third year of completing an Honours Bachelor of Science at the University of Toronto Mississauga. I am doing a double major in Geographical Information Systems (GIS) and Communication, Culture Information, and Technology (CCIT). In my free time, I love travelling and enjoying the outdoors.

Ryan Wong (right): I am a third-year student at the University of Toronto Mississauga. I am double majoring in Geographical Information Systems (GIS), and Communication, Culture Information, and Technology (CCIT). I am also doing a minor in Computer Science. On the side, I play the trumpet, and I enjoy camping.

App Description & Features

Data Empire is an app that demonstrates the predicted projection of COVID-19 in Canada. The app consists of a map view of the predicted projection of confirmed cases and deaths. There is a time widget on the map view, which allows the user to slide through the dates to see the number of confirmed cases, and confirmed deaths and also the predicted number of cases and predicted number of deaths. The user is able to click on each province and territory in Canada on the top left. This will indicate the province on the map and will also have a graph widget showing the predicted confirmed cases and the deaths. The user is also able to view the predicted confirmed cases in Canada for a total number. There is a legend available for the user to compare provinces and territories. When the user clicks on the province/territory on the map, they will be given information about that province, such as the number of confirmed cases, the number of predicted cases and the number of deaths. The number of confirmed cases ends on April 2, 2020, and then the predicted projection starts for about a month's time. This model is accurate 90% up to the next day (April 4th, 2020) and 60% accurate for up to a week (April 10).

User Manual

1. Select a provide or territory in Canada to view a graph of the confirmed cases and deaths with its predicted projections. The location of the provide/territory will also appear on the map
2. Drag or click play on the timeline on the map. This will show a progression of cases and deaths in all of Canada
3. You can also select only Canada to view a graph and a map view of the confirmed cases along with its predicted projection

Open Data Sources

Canada - Confirmed cases and deceased

- Government of Canada | Coronavirus disease (COVID-19): Outbreak update:
<https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronaviruses-infection.html>

Country/Province Coordinates

- Coronavirus COVID-19 Case:
<https://coronavirus-resources.esri.com/datasets/bbb2e4f589ba40d692fab712ae37b9ac>