



Submission Form

Team #: 10

Team Name: Canadian Climate Stripes

Theme

Choose **only one** theme below and delete the others

Artify the Earth

Submission Details

Submission Name: Canadian Climate Stripes

Submission Headline (5-8 words): Visualising Canada's changing climate

Submission Description: In 2018, Ed Hawkins, a climate scientist from the University of Reading, UK, introduced the world to Warming Stripes as a way to visualise climate change using meteorological data. Just a few weeks ago, Ed and colleagues launched the the #showyourstripes website, which makes it really easy to generate a warming stripes image for locations around the globe. Unfortunately, for Canada the only dataset available on the site is the average annual temperature for the entire country from the Berkeley Earth data set.

Our project set out to visualise Canada's changing climate using data from the Adjusted and Homogenised Canadian Climate Data (AHCCD) set and allow people to easily generate climate stripes for their local region.

Our main submission is an image of Canada's changing climate by province, with red colour indicating progressively warmer average annual temperature than the 1901-2000 average, per province.

Github Repo: <https://github.com/simpson-lab/canada-climate-stripes>

Video Link

Please make your video public or include a password. Videos should demonstrate your solution can be a maximum of 2 minutes

Link:

Password *(Optional)*:

Datasets

Please List all the datasets you used in your solution

1. Adjusted and Homogenised Canadian Climate Data (daily data)
- 2.
- 3.
- 4.
- 5.
- 6.

Technology used

Please describe the technology used to build your solution.

We used the R statistical software for our project. We used a range of tidyverse packages to load and process the full daily AHCCD data product and then produced our climate stripe figures using ggplot2. Custom R scripts and code were written to simplify many of the steps in processing the data.

Prizing

In addition to the Theme Champions and Grand Champion there are two additional categories. Please choose if they apply to your team/solution.

Student Champion

The submission that receives the highest score and a minimum of half the team members are currently a student.

Does this apply to your team? *(Yes or No)*: Yes

Open Source Champion

The submission that receives the highest score and where all its code, files, and dependencies are released under a FOSS license like MIT, GPL, Apache.

Does this apply to your solution? *(Yes or No)*: Yes (MIT)

Next Steps

When you have completed this form, please pdf it and upload it as part of your submission. In addition to this form you will also be required to share your code repository. This is for judging and auditing purposes only – you own the IP. If you have additional materials you can add them to this pdf or add in links to this document. e.g. to a Google drive or Dropbox folder. Please note that the judges will have a limited amount of time to review your submission, so only include materials that are essential to pitching your solution.