

Capstone project

“Climate and Happiness”

Introduction

Every year a *world happiness report* is published. It gathers several statistics on wellbeing and happiness with the help of respondents of over 100 countries. In this project we will collect geojson and venue data of the worldwide happiness and climate data, and discuss how strongly the climate influences the happiness of a country. It is to be expected that there are stronger factors than climate when it comes to overall happiness of the people. However, we will specifically investigate if there is any influence at all.

To answer these questions we plan to do the following:

- 1) Gather the happiness table
- 2) Retrieve geojson information of the countries
- 3) Gather climate data, we will focus on avg. annual temperature and precipitation data
- 4) Merge the tables
- 5) Visualize the world maps using folium
- 6) Investigate the correlations between happiness, temperature, and precipitation
- 7) Build a multilinear regression model
- 8) Analyze the model with scatter plots, histograms, and expected variance

We will use unsupervised machine learning techniques and formulate different assumptions leading us through the analysis. Obviously, more specific knowledge could provide a better model - certain factors will always be out of scope. That being said, any considerations are made as realistic as possible.

The *target audience* is everyone interested in climate, as well as people who want to know more about which countries are the happiest.