

Visualizing the Gender Pay Gap Across the World

Project Overview

This project analyzes **gender wage gaps** across different countries and years, using the **Gender Economic Inequality Dataset** from Kaggle. The goal is to **visualize trends over time** and **compare wage gaps between multiple countries**.

Graphs Created

1. Gender Wage Gap in Brazil Over Time

This graph shows how the gender wage gap in Brazil has changed over the years.

2. Gender Wage Gap Comparison Between Countries

This graph compares the gender wage gap between multiple countries over time.

Libraries Used and What They Do

pandas

What it does: Helps us work with data tables. Why we used it: It loads the `paygap.csv` file and lets us explore, filter, and organize the data.

matplotlib

What it does: Helps us make graphs and charts. Why we used it: It allows us to visualize the gender wage gap over time by plotting the data for different countries.

What it does: A toolkit for working with text data. Why we might use it: If the dataset had any text columns, like comments or descriptions, NLTK would help clean the text.

Project Structure

```
bash Copy code
Pay-gap/
├── venv/ # Virtual environment folder
├── paygap.csv # The dataset used in this project
├── wage_gap_brazil.png # Graph of Brazil's wage gap
├── wage_gap_comparison.png # Graph comparing multiple countries
├── load_and_explore_data.py # Code to load and explore the dataset
├── visualize_gap.py # Code to plot the wage gap over time
└── README.md # This file (explains the project)
```

Dataset Source

This project uses the Gender Economic Inequality Dataset from Kaggle. You can find the dataset here: [Gender Economic Inequality Dataset – Kaggle](#)