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Introduction

A Visual History of Nobel Prize Winners

Analyze the Nobel Prize dataset to explore the gender and nationality distribution of laureates, the dominance of the United States, age trends, and notable winners.

About Me

- **Name**: Biyawala Viral Deven
- **Education**: Indian Institute of Information Technology , Surat - 3rd Year
- **Learning**: Machine Learning Learner from DataCamp
- **Skills For Project**: Language: Python

  Data Analysis and Manipulation(Pandas)

  Data Visualization using Matplotlib, SeaBorn

  Data Importing and Cleaning

  Statistical Analysis

Project Overview

- **Objective**: Explore the Nobel Prize dataset to analyze statistics, such as the representation of different countries and genders, the dominance of the United States, age distribution of winners, and identifying notable laureates.
- **Components**:
  - Loading Libraries and Data
  - Gender and Nationality of Nobel Prize Winners
  - USA Dominance in Nobel Prizes
  - Visualization of USA Dominance
  - Gender Imbalance among Nobel Prize Winners
- **Data Source**: Kaggle (Apps and User's review dataset)

Data Analysis Approach

- 1. Load the Nobel Prize dataset and examine its structure.
- 2. Identify the most commonly represented sex and country among the winners.
- 3. Analyze the trend of USA-born winners over time to determine when the USA started dominating.
- 4. Assess the gender imbalance across different prize categories.
- 5. Determine the age distribution of Nobel Prize winners and identify the oldest and youngest recipients.
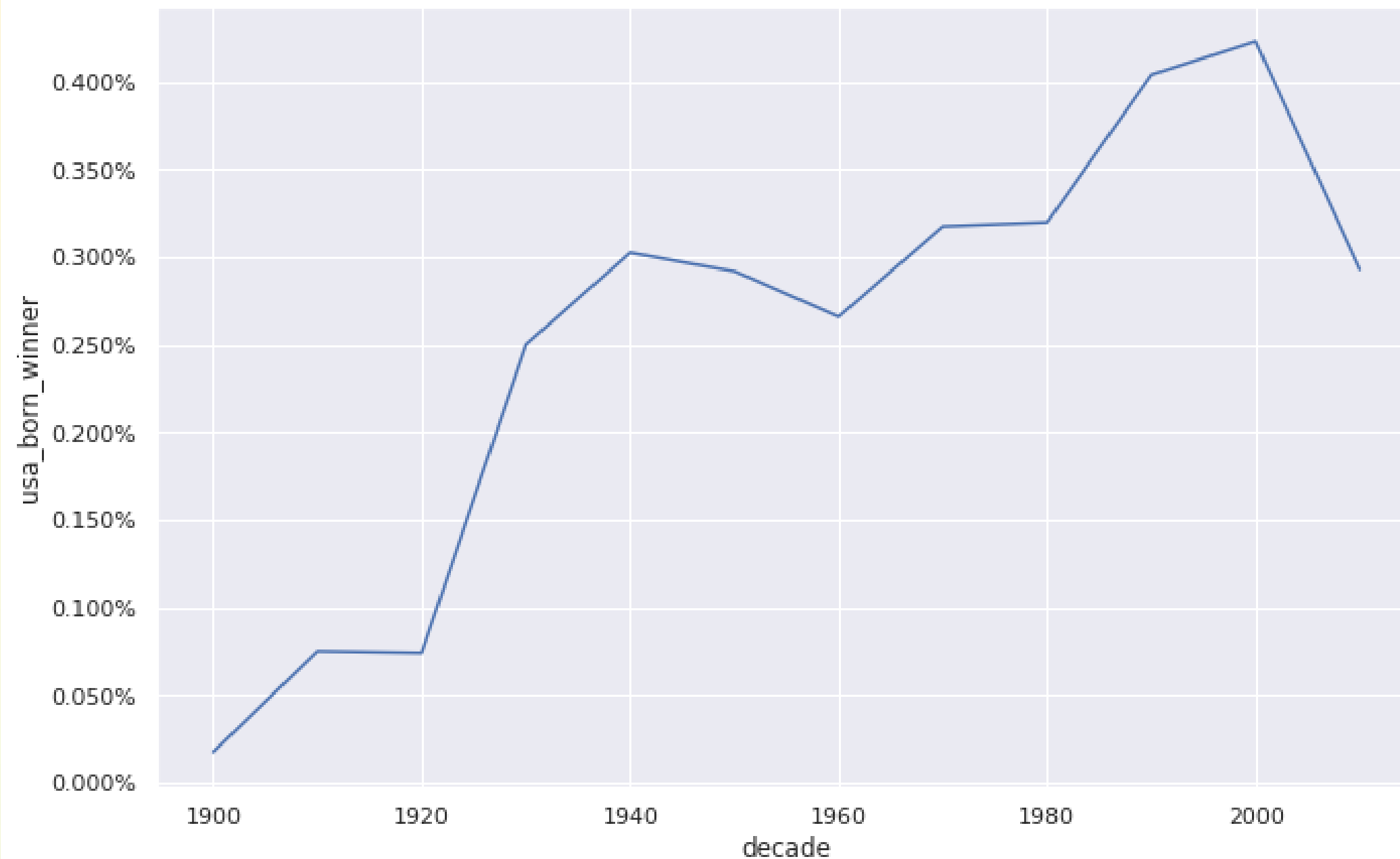
Results and Finding

- The dataset contains information about Nobel Prize winners from 1901 to 2016.
- The most commonly represented sex among Nobel laureates is male, with 893 male winners compared to 49 female winners.
- The top 3 nationalities with the most Nobel Prize winners are:
  >United States of America
  >United Kingdom
  >Germany
- The United States of America started dominating the Nobel Prize charts around the 1930s.
- A plot shows the proportion of USA-born winners per decade, indicating the increasing dominance of the United States over time.

Results and Finding

- There is a significant imbalance between male and female Nobel Prize winners across all categories.
- The first woman to receive a Nobel Prize was Marie Curie in the field of physics.
- Some individuals have received multiple Nobel Prizes, including Marie Curie, John Bardeen, Frederick Sanger, and Linus Carl Pauling.
- The oldest Nobel Prize winner as of 2016 was Leonid Hurwicz, who was 90 years old when he received the prize.
- The youngest winner was Malala Yousafzai, who received the prize in 2014 at a young age for her advocacy for children's education.

Visual Evidence

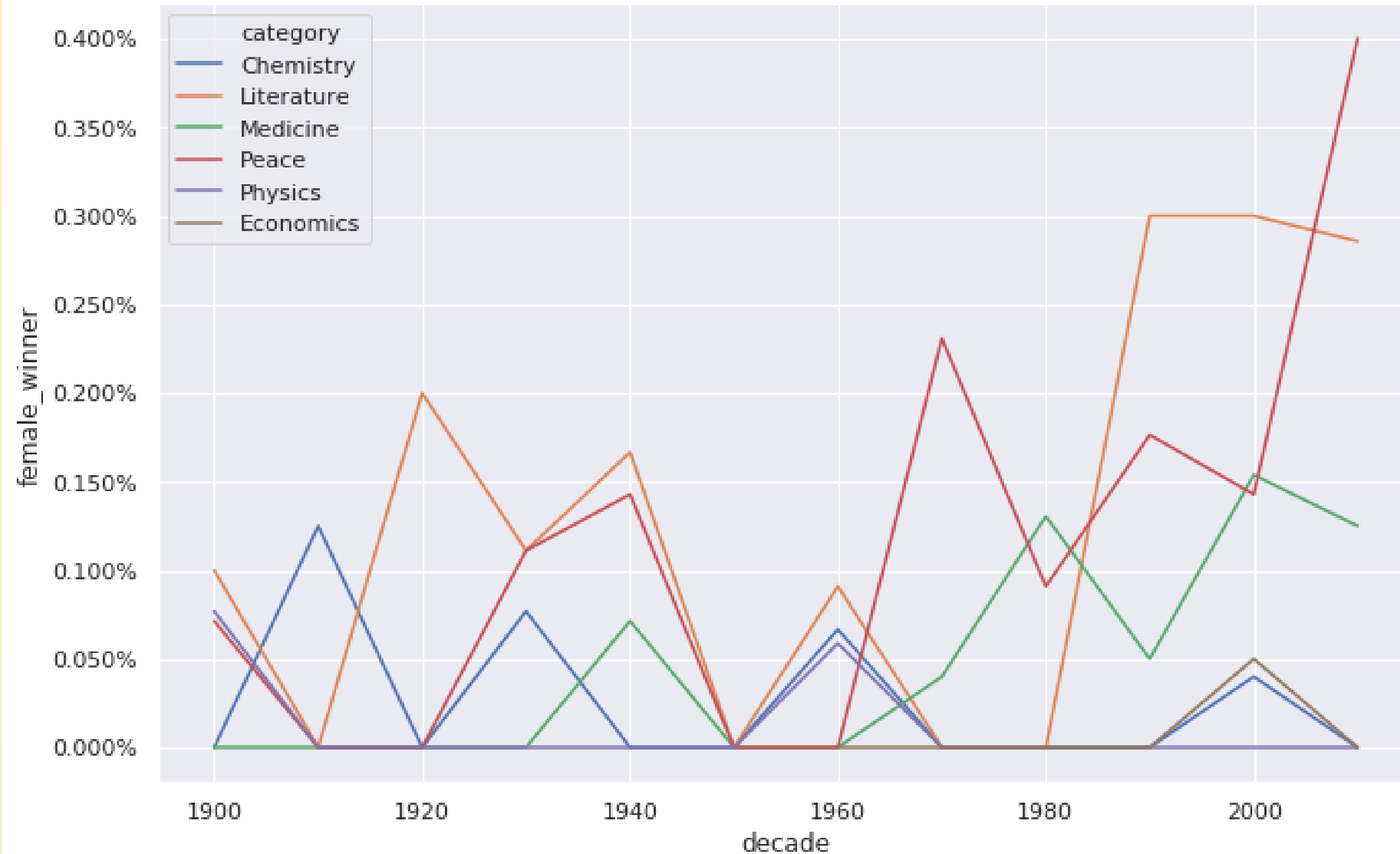Percentage of USA Born Nobel Price Winner

Age of Nobel Prize Winner

Visual Evidence

Female Percentage Nobel Prize Winner as Per Category

Conclusion

- The United States of America (USA) is the most commonly represented country among Nobel Prize winners.
- The Nobel Prize has historically been dominated by male recipients, with a significant gender imbalance across different prize categories.
- The USA started to dominate the Nobel Prize charts in the 1930s, surpassing European winners.
- The age of Nobel Prize winners has increased over time, with the average age now closer to 65. However, there is a wide range of ages among laureates, with some being very young.
- Malala Yousafzai is the youngest winner ever, receiving the Nobel Prize in 2014 for her advocacy of children's right to education.

Acknowledgments and Project Link

- **Acknowledgment to DataCamp**: I would like to express my gratitude to DataCamp for providing valuable courses and resources that have contributed to my learning journey and the completion of this project.
- **Acknowledgment to Kaggle**: I would like to acknowledge Kaggle for providing the dataset used in this project. The dataset from Kaggle has been instrumental in conducting the analysis and deriving meaningful insights.

To access the code and detailed documentation for this project, please visit the my GitHub repository by [Clicking Here](#)

Future Scope

- Analyzing the diversity and inclusion trends in Nobel Prize winners over time.
- Examining the impact of Nobel Prize winners in different fields on scientific advancements and societal progress.
- Exploring the correlation between Nobel Prize-winning research and subsequent breakthroughs or innovations.
- Investigating the influence of geopolitical factors on Nobel Prize distribution and recognition.
- Assessing the long-term effects and influence of Nobel laureates on their respective fields and the broader scientific community.

Thanks y'all