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Capstone Project 4

Group 2

Methodology

INSPIRATION

As an all-female group in this Data Science Capstone Project, we wanted to analyze the wage gap in the workplace. Is the well-known quote, “Women make $.78 on the dollar” still true today? Is the gender wage gap closing or expanding? Did Covid affect the wage gap?

PROJECT DESIGN

Due to our project relating to gender, we didn’t want to use to cliché baby blue and pink for our visualizations. After further research, we explored <https://blog.datawrapper.de/gendercolor/> and agreed on the Telegraph, 2018 color pattern. The male color is, light sea green, html code of #1fc3aa. The male color is, blue violent, html code of #8624f5. We wanted to utilize the same shade of black, html code #13161d for the background and dark slate gray, html code #1e2530 as an accent.

The website template was inspired by <https://themefisher.com/products/phantom-best-bootstrap-portfolio-template/> a website that provides free website templates. We felt as a team this website template is clean, unique and definitely an attention demander.

DATA SOURCES

We began with the thought of utilizing an existing Kaggle Dataset, “Glassdoor Gender Pay Gap” for the entire project. We decided against it because the data was in our opinion, dated. We only utilized the data for the machine learning portion of the project. We utilized more recent (2015 to 2020) data retrieved from BLS.gov for our visualizations.

HYPOTHESIS

CLEANING DATA

We noticed throughout literature and datasets both female/women, male/men, and pay/wage was used interchangeably. We decided to use female, male and wage across the project for consistency.

We loaded our data file to python and merged with an existing kaggle dataset “world\_country\_and\_usa\_states\_latitude\_and\_longitude\_values” to retrieve the latitude and longitudes needed to build our map United States Map. We dropped all nan/null values and renamed columns to import into Tableau without errors.

DATA TRANSFORMATION

MACHINE LEARNING

CONCLUSONS  
  
LIMITATIONS

FUTURE WORK

With unlimited resources we would create a website that can toggle between light and dark mode according to user preference.