compensation_analysis

June 8, 2022

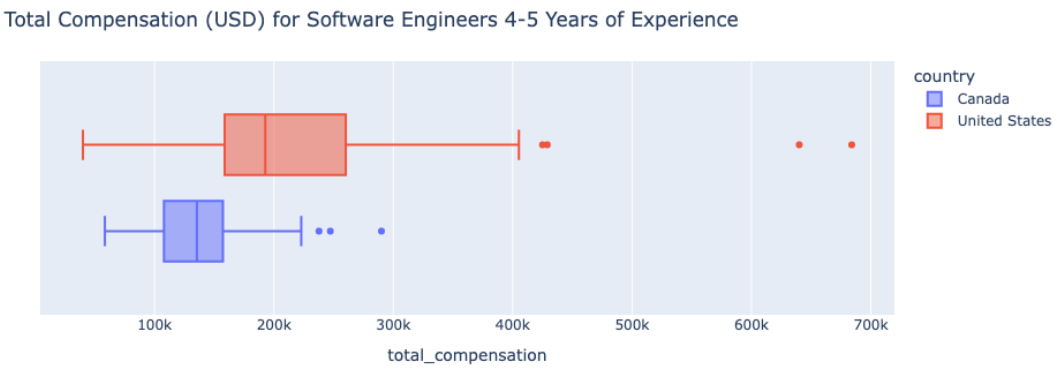
[14]:
```
import json
import pandas as pd
import plotly.express as px
```

[16]:
```
with open("remote_software_engineer_us_canada.json", "r") as f:
    swe = json.load(f)

with open("remote_data_science_us_canada.json", "r") as f:
    ds = json.load(f)
```

[31]:
```
swe = pd.DataFrame(swe)
swe["date"] = pd.to_datetime(swe["date"])
swe["year"] = swe["date"].apply(lambda x: x.year)
swe = swe.sort_values("years_of_experience")
swe = swe[(swe.years_of_experience >= 4) & (swe.years_of_experience <= 5)]
```

[32]:
```
ds = pd.DataFrame(ds)
ds["date"] = pd.to_datetime(ds["date"])
ds["year"] = ds["date"].apply(lambda x: x.year)
ds = ds.sort_values("years_of_experience")
ds = ds[(ds.years_of_experience >= 4) & (ds.years_of_experience <= 5)]
```

[33]:
```
fig = px.box(swe.sort_values('country'), x="total_compensation",␣
 ↪color="country")
fig.update_layout(
    title_text='Total Compensation (USD) for Software Engineers 4-5 Years of␣
 ↪Experience '
)

fig.show()
print("Median Total Compensation (USD)")
tc = swe.groupby("country")['total_compensation'].median().reset_index()
tc["total_compensation_cad"] = tc['total_compensation']*1.26
tc
```

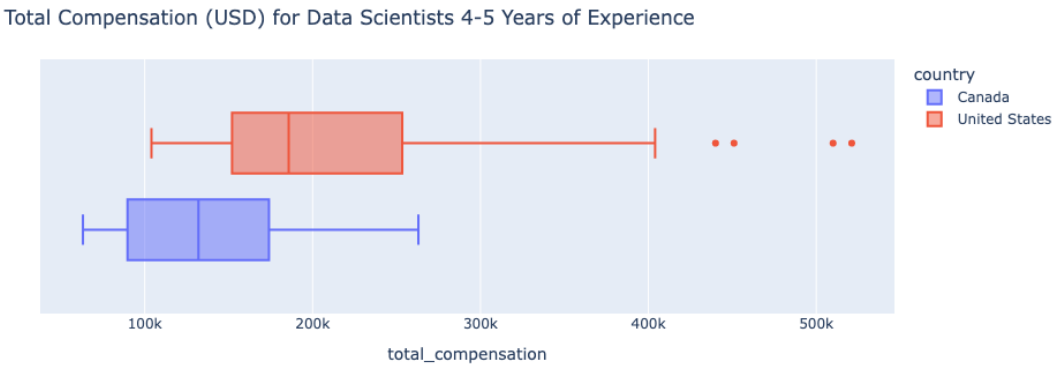


Median Total Compensation (USD)

[33]:

	country	total_compensation	total_compensation_cad
0	Canada	135451	170668.26
1	United States	192750	242865.00

[35]:
```
fig = px.box(ds.sort_values('country'), x="total_compensation", color="country")
fig.update_layout(
    title_text='Total Compensation (USD) for Data Scientists 4-5 Years of␣
 ↪Experience '
)

fig.show()
print("Median Total Compensation (USD)")
tc = ds.groupby("country")['total_compensation'].median().reset_index()
tc["total_compensation_cad"] = tc['total_compensation']*1.26
tc
```



Median Total Compensation (USD)

[35]:

	country	total_compensation	total_compensation_cad
0	Canada	131992.5	166310.55
1	United States	185750.0	234045.00