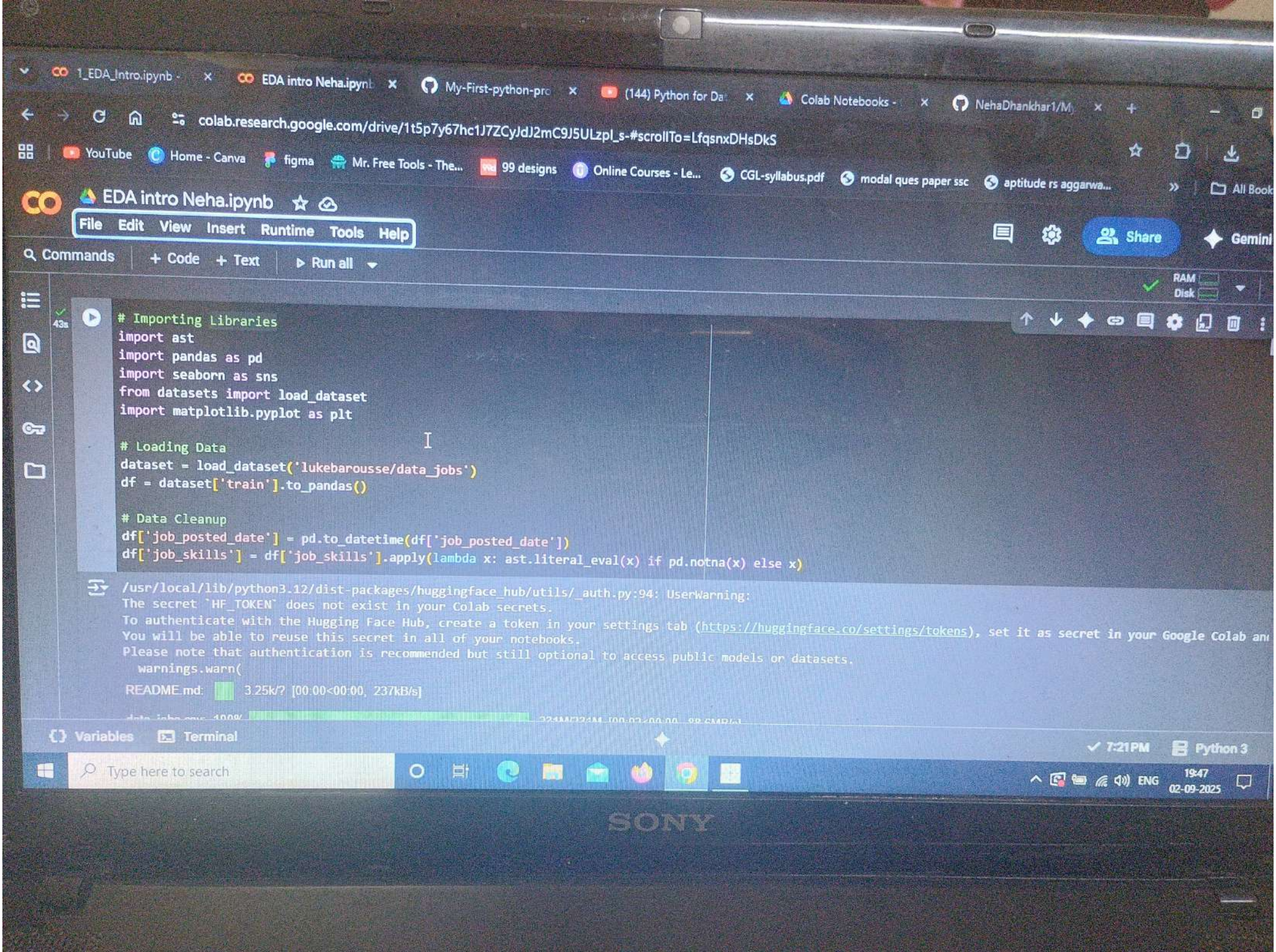
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# Importing Libraries
import ast
import pandas as pd
import seaborn as sns
from datasets import load_dataset
import matplotlib.pyplot as plt
# Loading Data
dataset = load_dataset('lukebarousse/data_jobs')
df = dataset['train'].to_pandas()
# Data Cleanup
df['job_posted_date'] = pd.to_datetime(df['job_posted_date'])
df['job_skills'] = df['job_skills'].apply(lambda x: ast.literal_eval(x) if pd.notna(x) else x)
/usr/local/lib/python3.12/dist-packages/huggingface_hub/utils/_auth.py:94: UserWarning:
The secret `HF_TOKEN` does not exist in your Colab secrets.
To authenticate with the Hugging Face Hub, create a token in your settings tab (https://huggingface.co/settings/tokens), set it as secret in your Google Colab an
You will be able to reuse this secret in all of your notebooks.
Please note that authentication is recommended but still optional to access public models or datasets.
warnings.warn(
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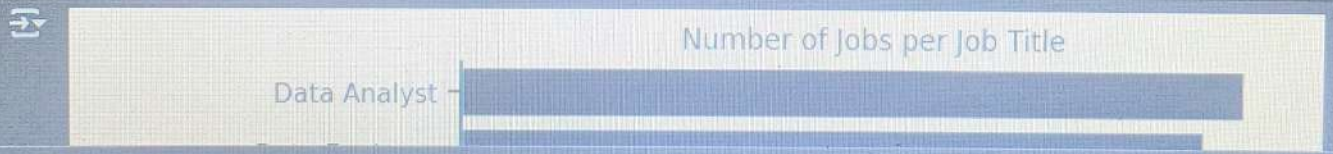
```
You will be able to reuse this secret in all of your notebooks.
Please note that authentication is recommended but still optional to access public models or datasets.
  warnings.warn(
README.md: 3.25k/? [00:00<00:00, 237kB/s]
data_jobs.csv: 100% 231M/231M [00:02<00:00, 88.6MB/s]
Generating train split: 100% 785741/785741 [00:14<00:00, 101457.14 examples/s]
```

```
df_plot = df['job_title_short'].value_counts().to_frame()

sns.set_theme(style='ticks')
sns.barplot(data=df_plot, x='count', y='job_title_short', hue='count', palette='dark:b_r', legend=False)
sns.despine()
plt.title('Number of Jobs per Job Title')
plt.xlabel('Number of Jobs')
plt.ylabel('')
plt.show()
```



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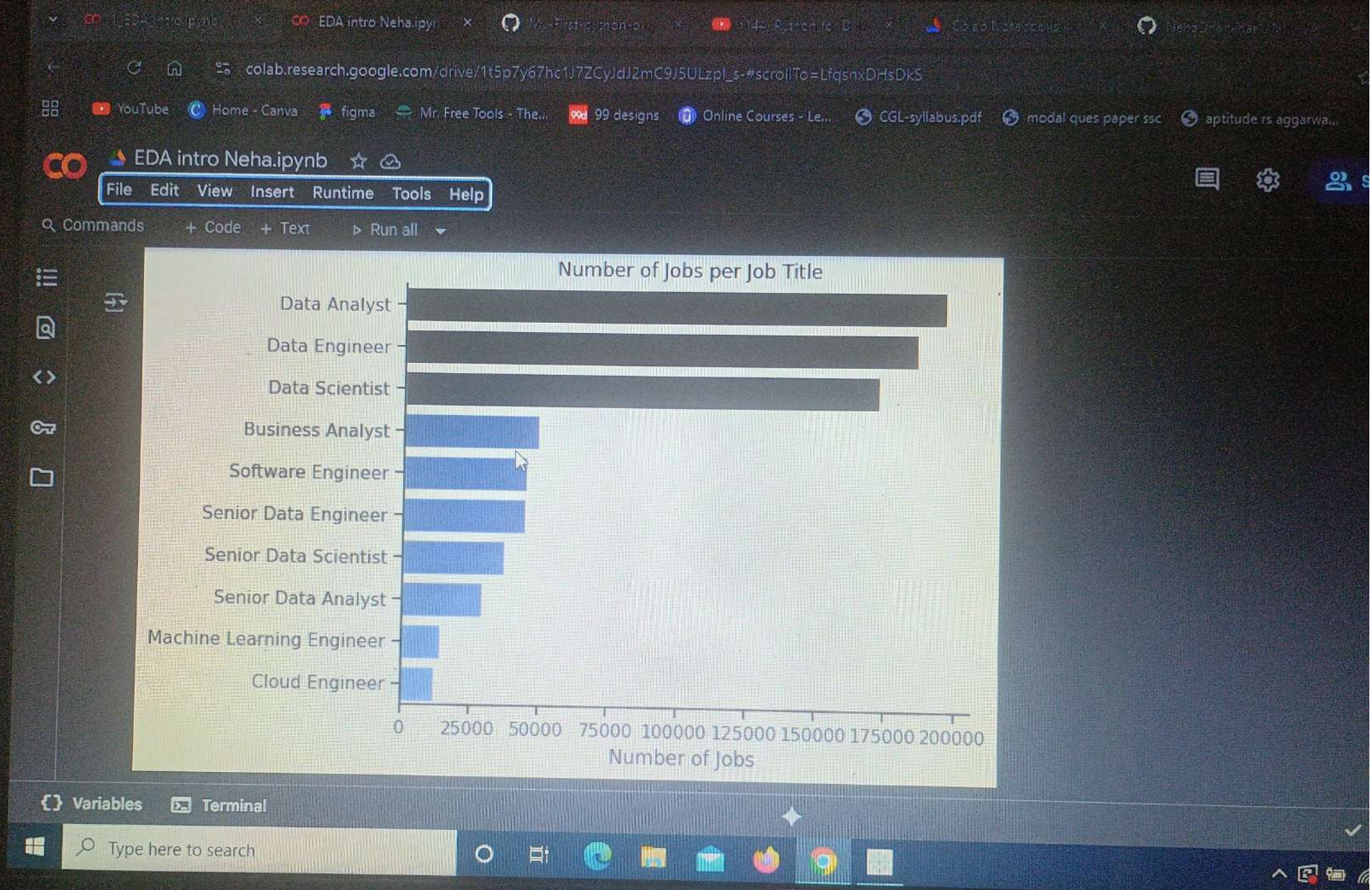
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File Edit View Insert Runtime Tools Help
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Number of Jobs per Job Title
Data Analyst
Data Engineer
Data Scientist
Business Analyst
Software Engineer
Senior Data Engineer
Senior Data Scientist
Senior Data Analyst
Machine Learning Engineer
Cloud Engineer
0 25000 50000 75000 100000 125000 150000 175000 200000
Number of Jobs
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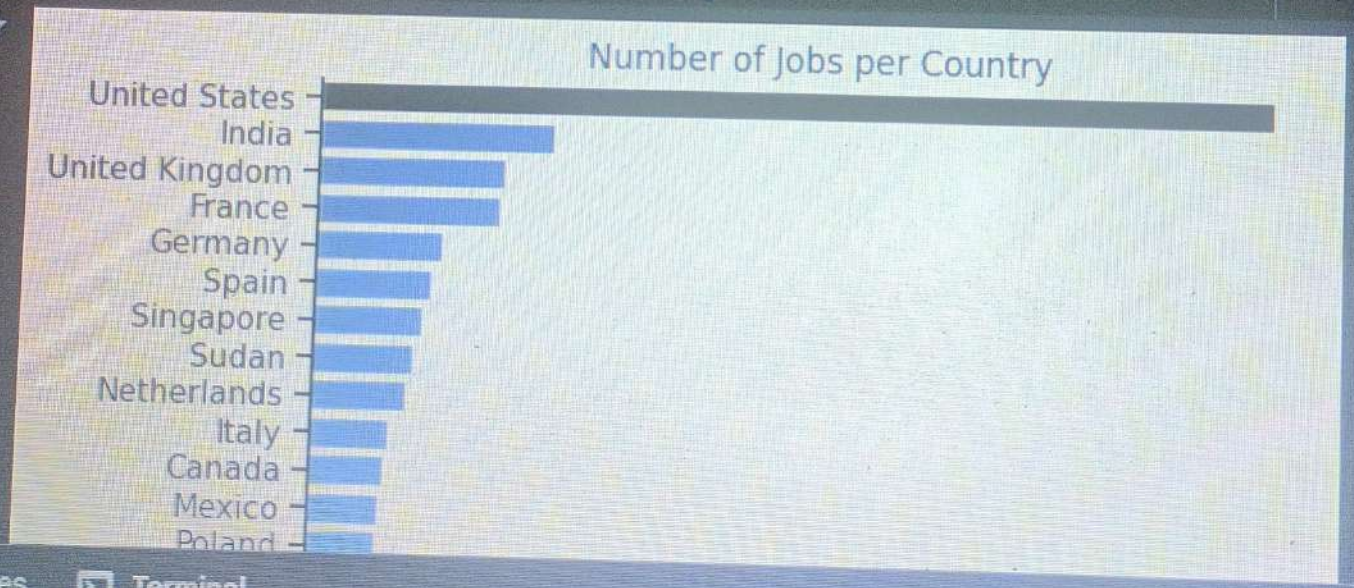
```
df_plot = df['job_country'].value_counts().to_frame().head(20)

sns.set_theme(style='ticks')
sns.barplot(data=df_plot, x='count', y='job_country', hue='count', palette='dark:b_r', legend=False)
sns.despine()
plt.title('Number of Jobs per Country')
plt.xlabel('Number of Jobs')
plt.ylabel('')
plt.show()
```



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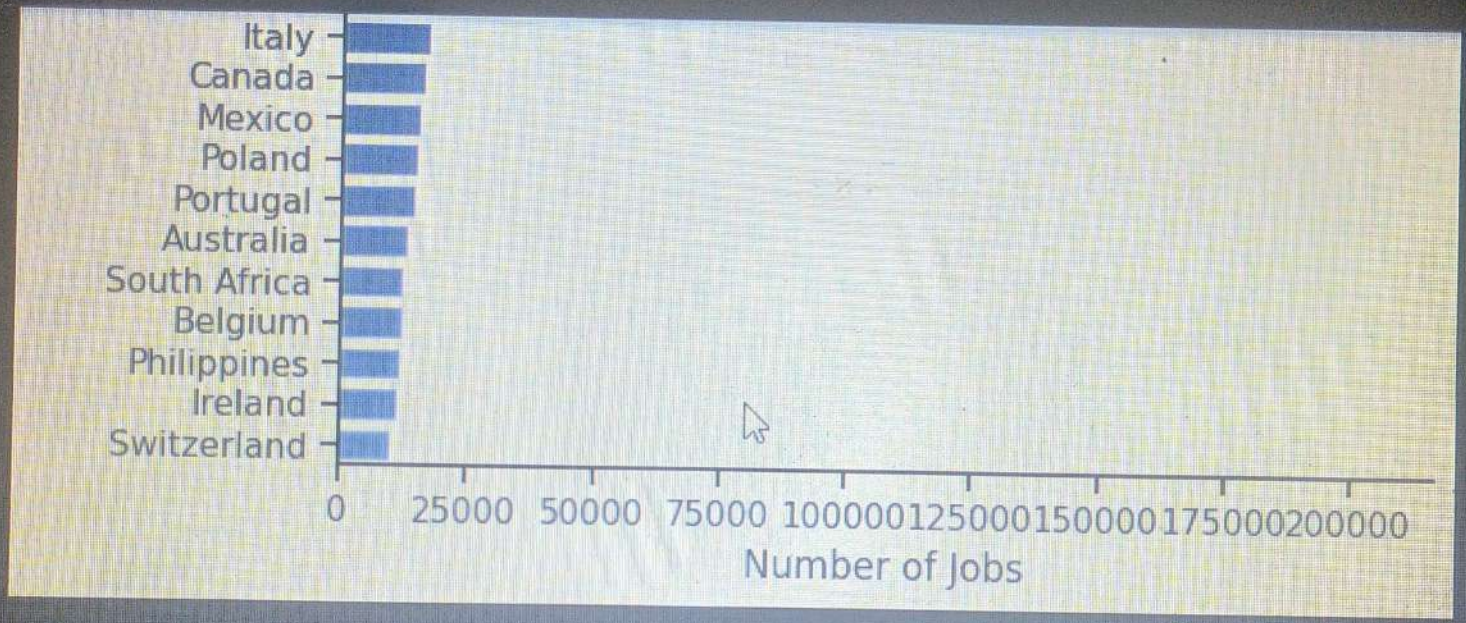

[4]
```
df_plot = df['company_name'].value_counts().to_frame()[1:].head(20)

sns.set_theme(style='ticks')
sns.barplot(data=df_plot, x='count', y='company_name', hue='count', palette='dark:b_r', legend=False)
sns.despine()
plt.title('Number of Jobs per Company')
plt.xlabel('Number of Jobs')
plt.ylabel('')
plt.show()
```

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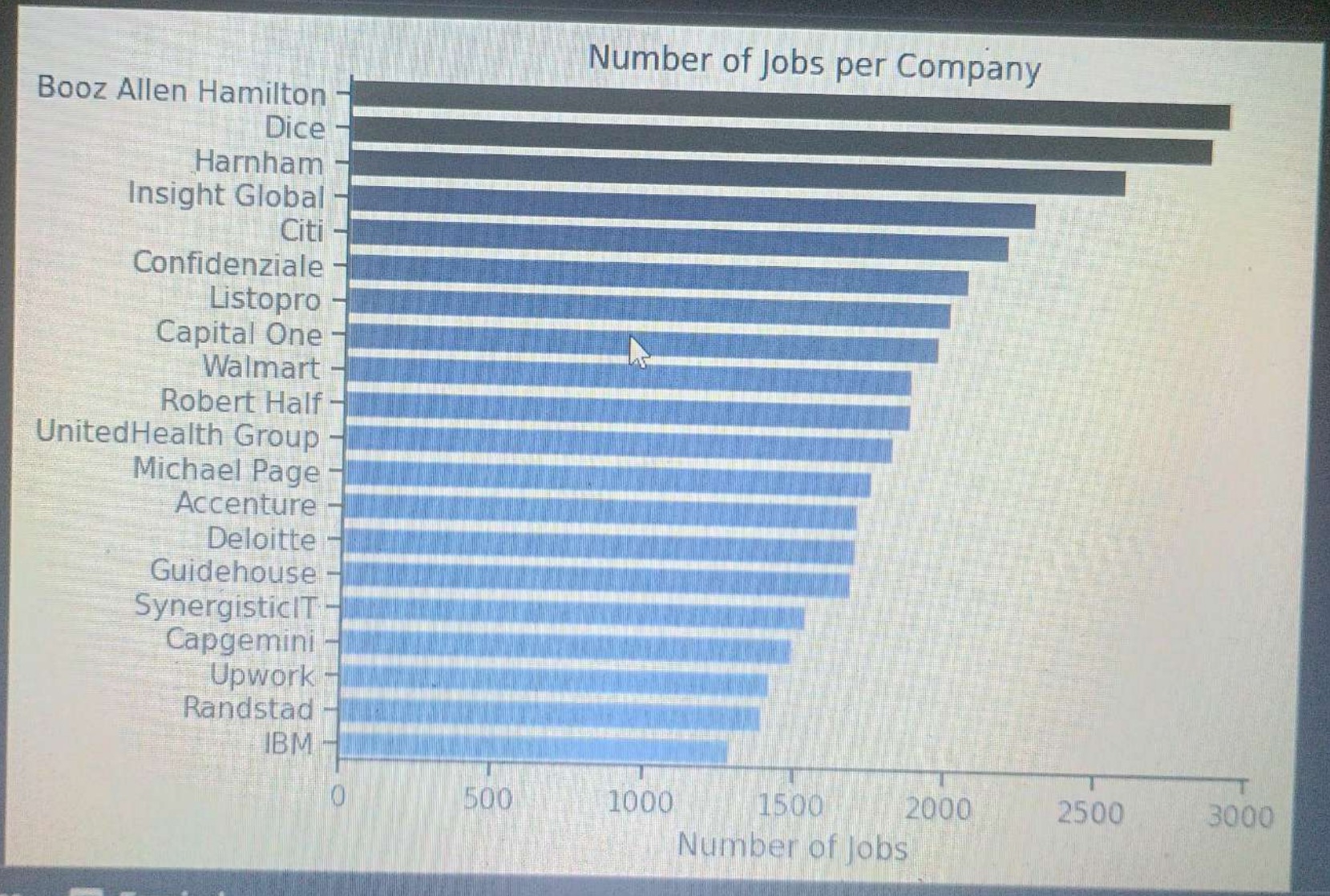

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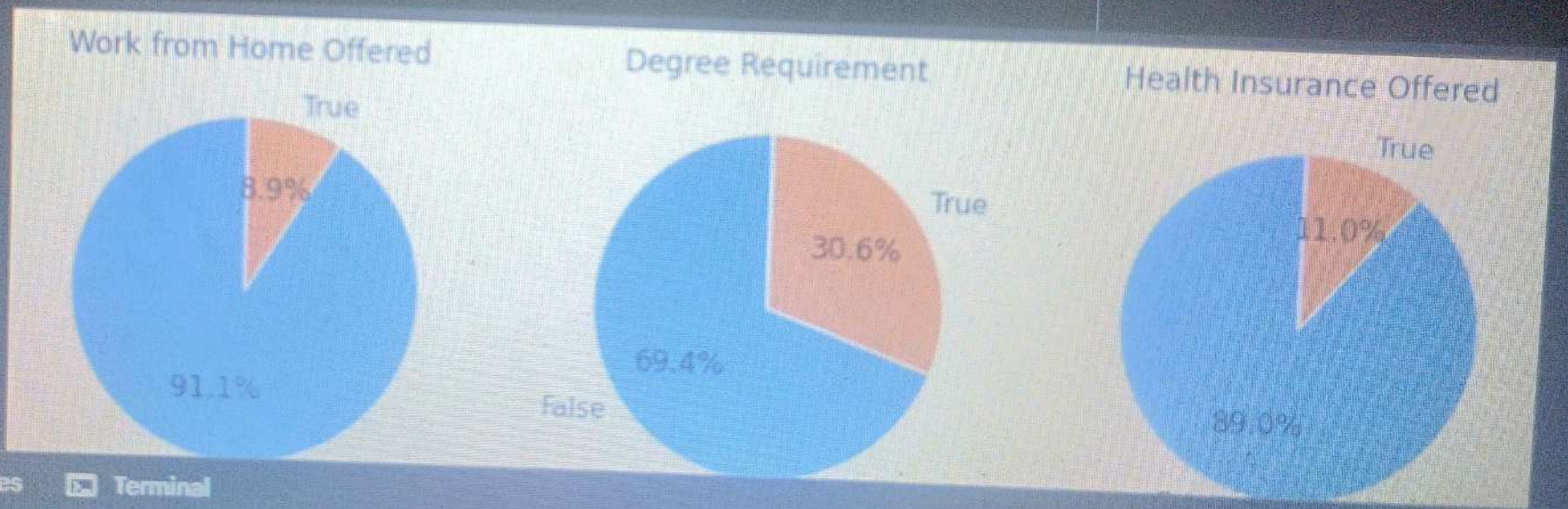
```
dict_column = {
    'job_work_from_home': 'Work from Home Offered',
    'job_no_degree_mention': 'Degree Requirement',
    'job_health_insurance': 'Health Insurance Offered'
}

fig, ax = plt.subplots(1, 3, figsize=(11, 3.5))

for i, (column, title) in enumerate(dict_column.items()):
    ax[i].pie(df[column].value_counts(), labels=['False', 'True'], autopct='%1.1f%%', startangle=90)
    ax[i].set_title(title)

plt.show()
```



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```python
# Importing Libraries
import ast
import pandas as pd
import seaborn as sns
from datasets import load_dataset
import matplotlib.pyplot as plt

# Loading Data
dataset = load_dataset('lukebarousse/data_jobs')
df = dataset['train'].to_pandas()

# Data Cleanup
df['job_posted_date'] = pd.to_datetime(df['job_posted_date'])
df['job_skills'] = df['job_skills'].apply(lambda x: ast.literal_eval(x) if pd.notna(x) else x)
```

```python
df_DA_US = df[(df['job_country'] == 'United States') & (df['job_title_short'] == 'Data Analyst')]
```

```python
df_plot = df_DA_US['job_location'].value_counts().head(10).to_frame()

sns.set_theme(style='ticks')
sns.barplot(data=df_plot, x='count', y='job_location', hue='count', palette='dark:b_r', legend=False)
sns.despine()
plt.title('Counts of Job Locations for Data Analyst in the US')
plt.xlabel('Number of Jobs')
plt.ylabel('')
plt.show()
```

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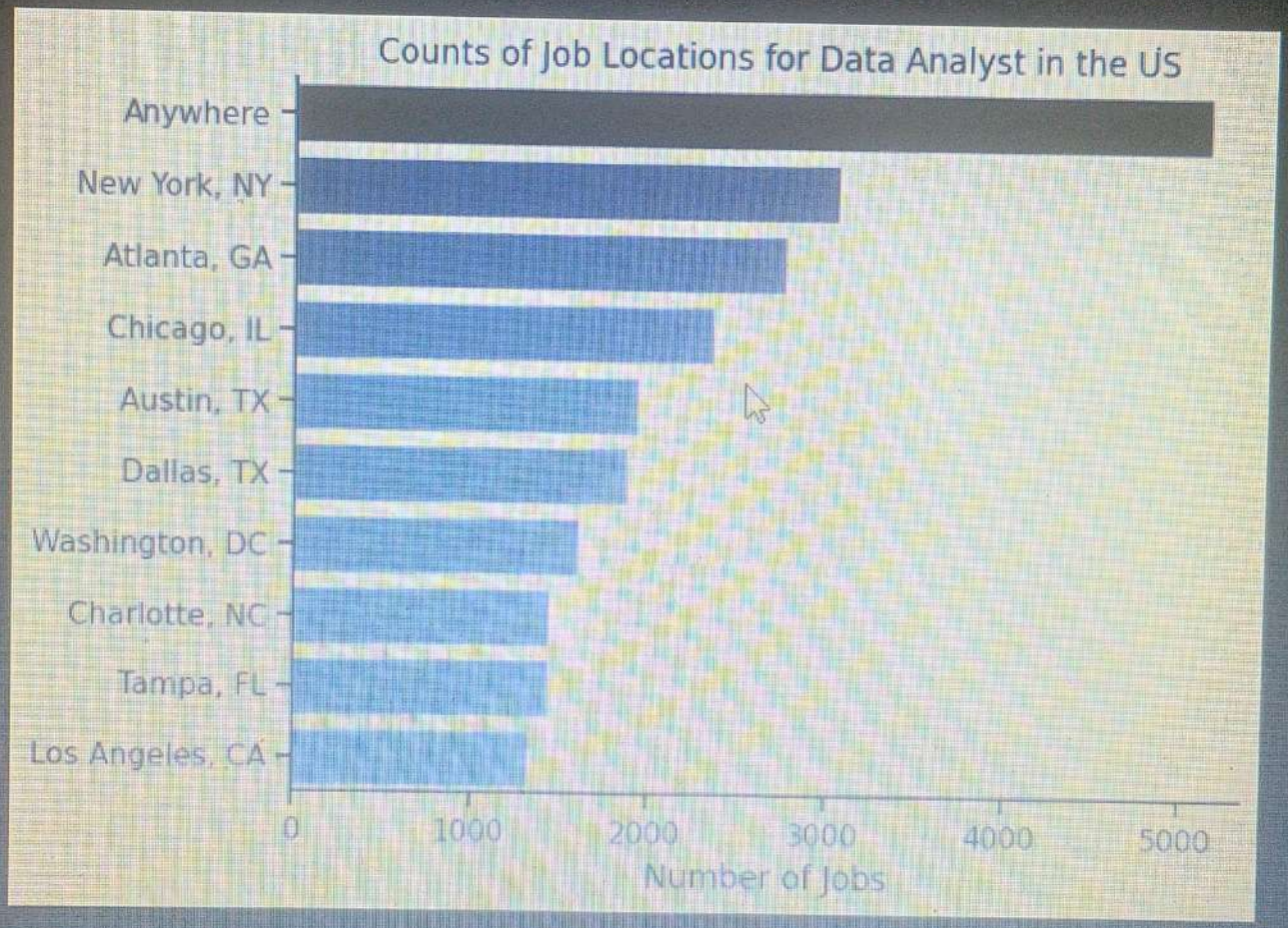

[9] # rewrite the above with a for loop

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```
# rewrite the above with a for loop
dict_column = {
    'job_work_from_home': 'Work from Home Offered',
    'job_no_degree_mention': 'Degree Requirement',
    'job_health_insurance': 'Health Insurance Offered'
}

fig, ax = plt.subplots(1, 3)
fig.set_size_inches((12, 5))

for i, (column, title) in enumerate(dict_column.items()):
    ax[i].pie(df_DA_US[column].value_counts(), labels=['False', 'True'], autopct='%1.1f%%', startangle=90)
    ax[i].set_title(title)

# plt.suptitle('Benefit Analysis of Data Jobs', fontsize=16)
plt.show()
```

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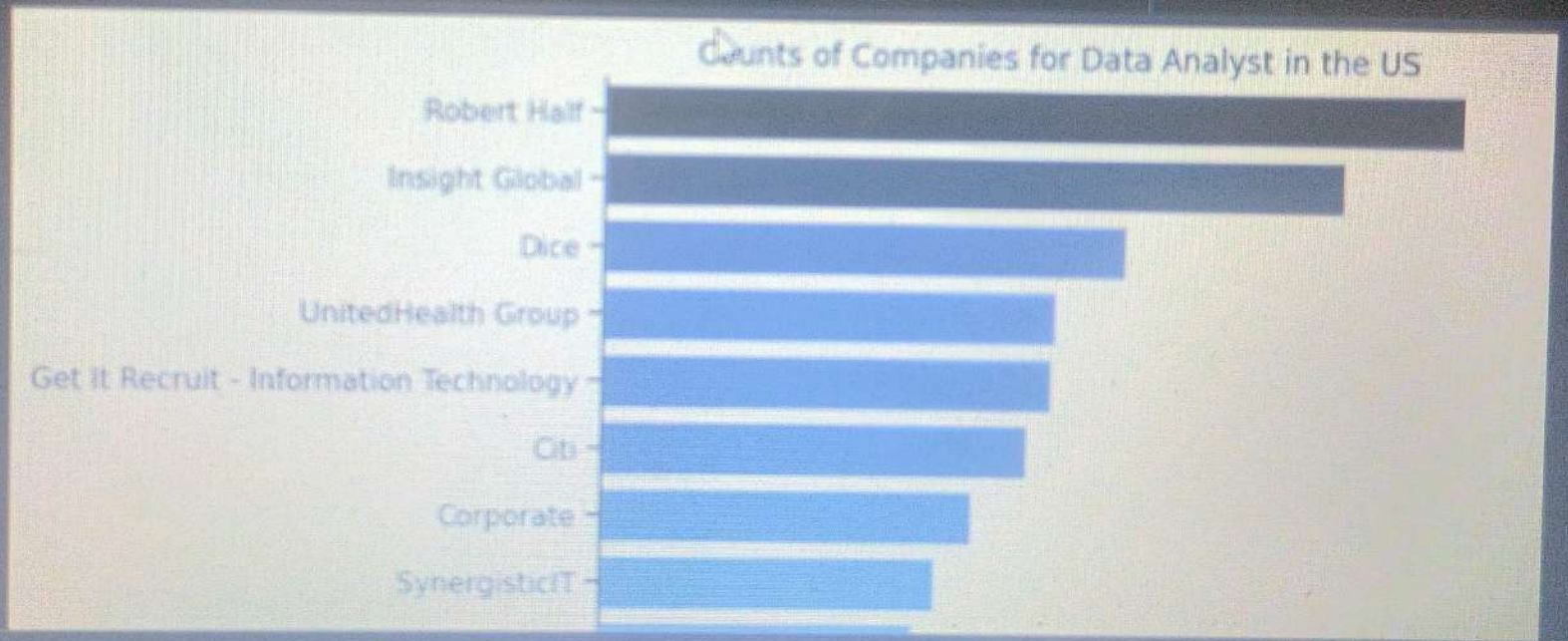
```
df_plot = df_DA_US['company_name'].value_counts().head(10).to_frame()

sns.set_theme(style='ticks')
sns.barplot(data=df_plot, x='count', y='company_name', hue='count', palette='dark:b_r', legend=False)
sns.despine()
plt.title('Counts of Companies for Data Analyst in the US')
plt.xlabel('Number of Jobs')
plt.ylabel('')
plt.show()
```



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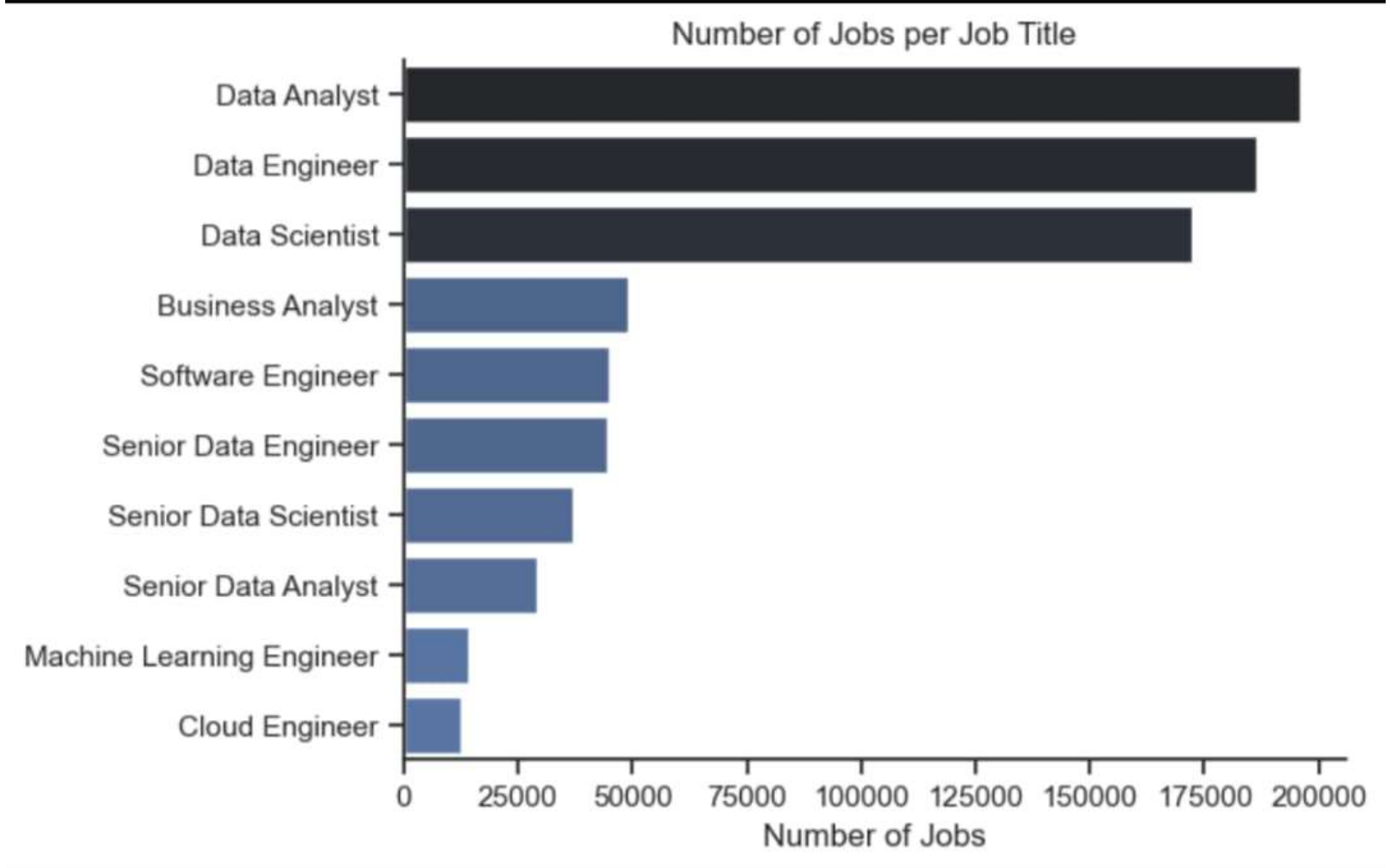
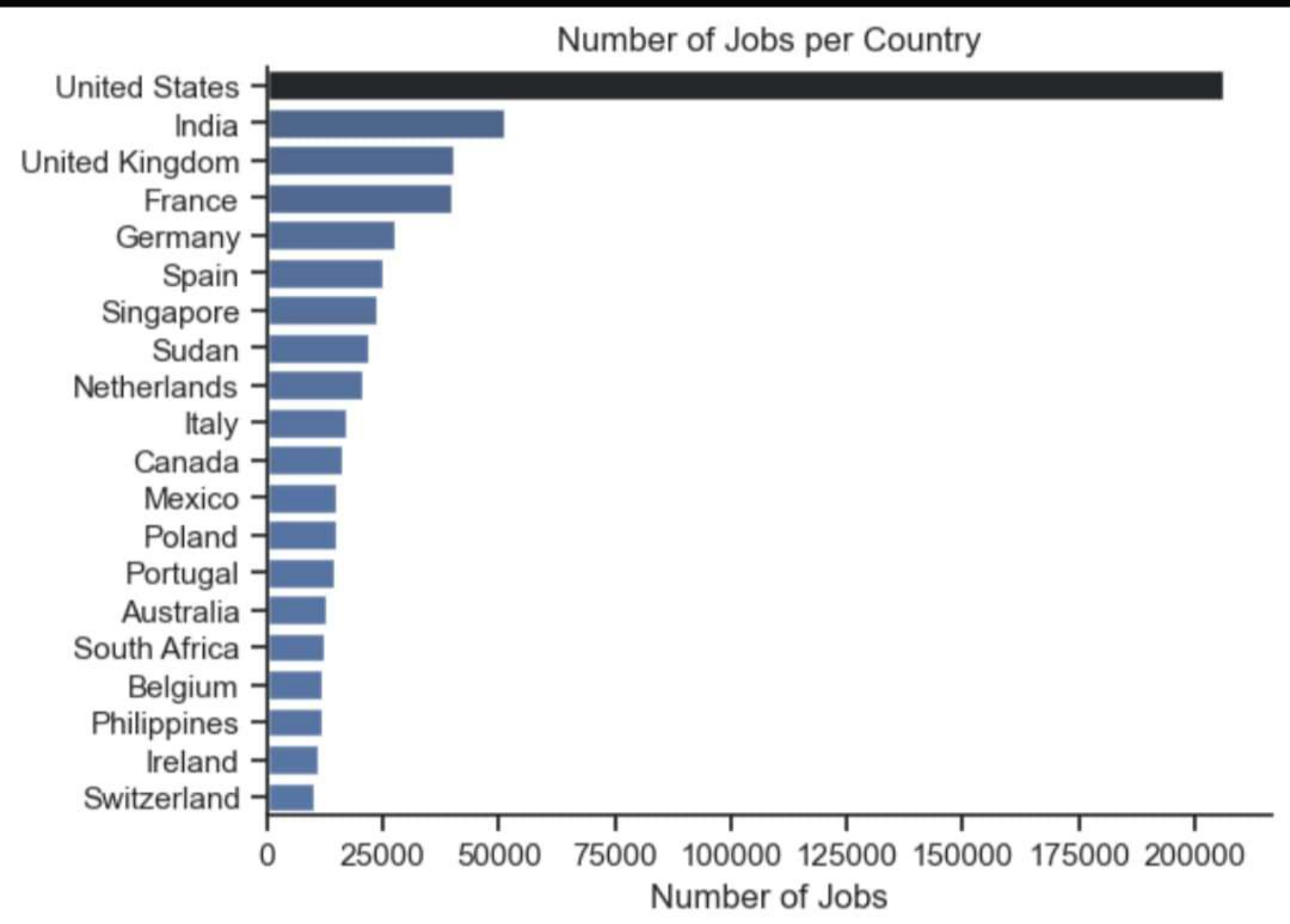
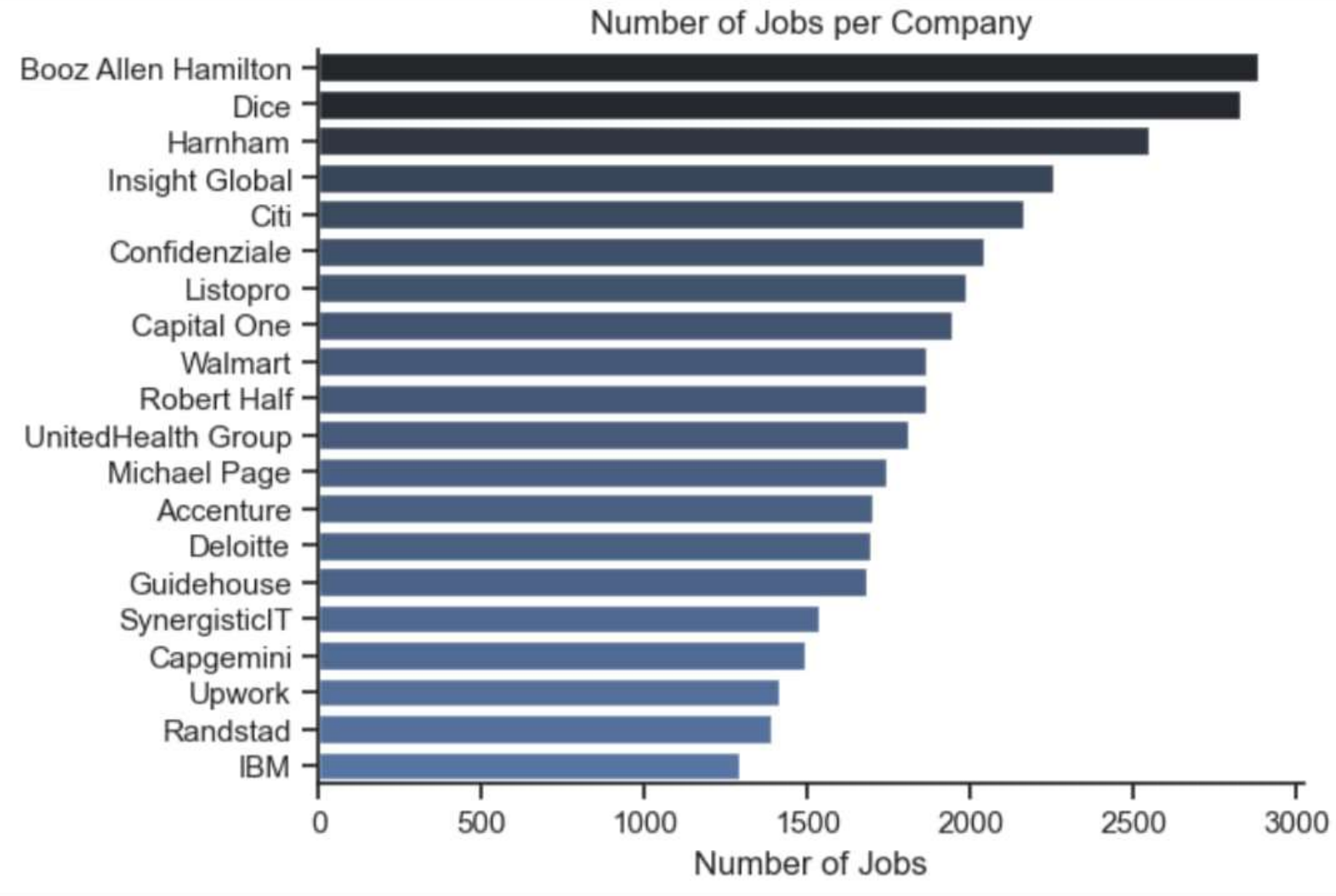
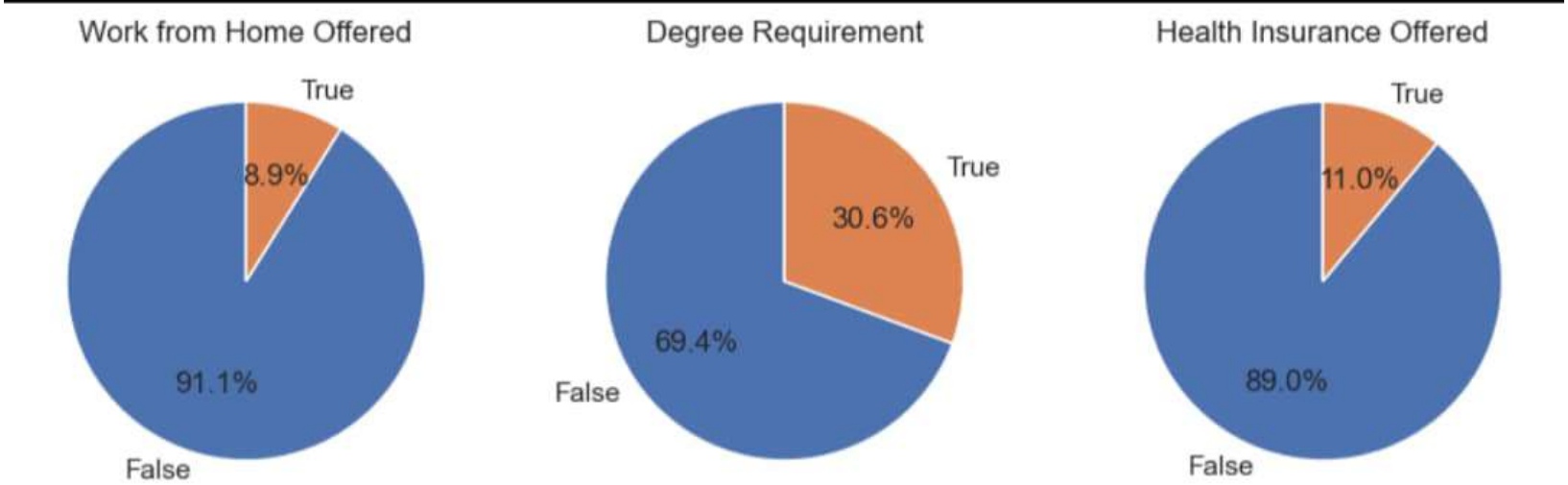
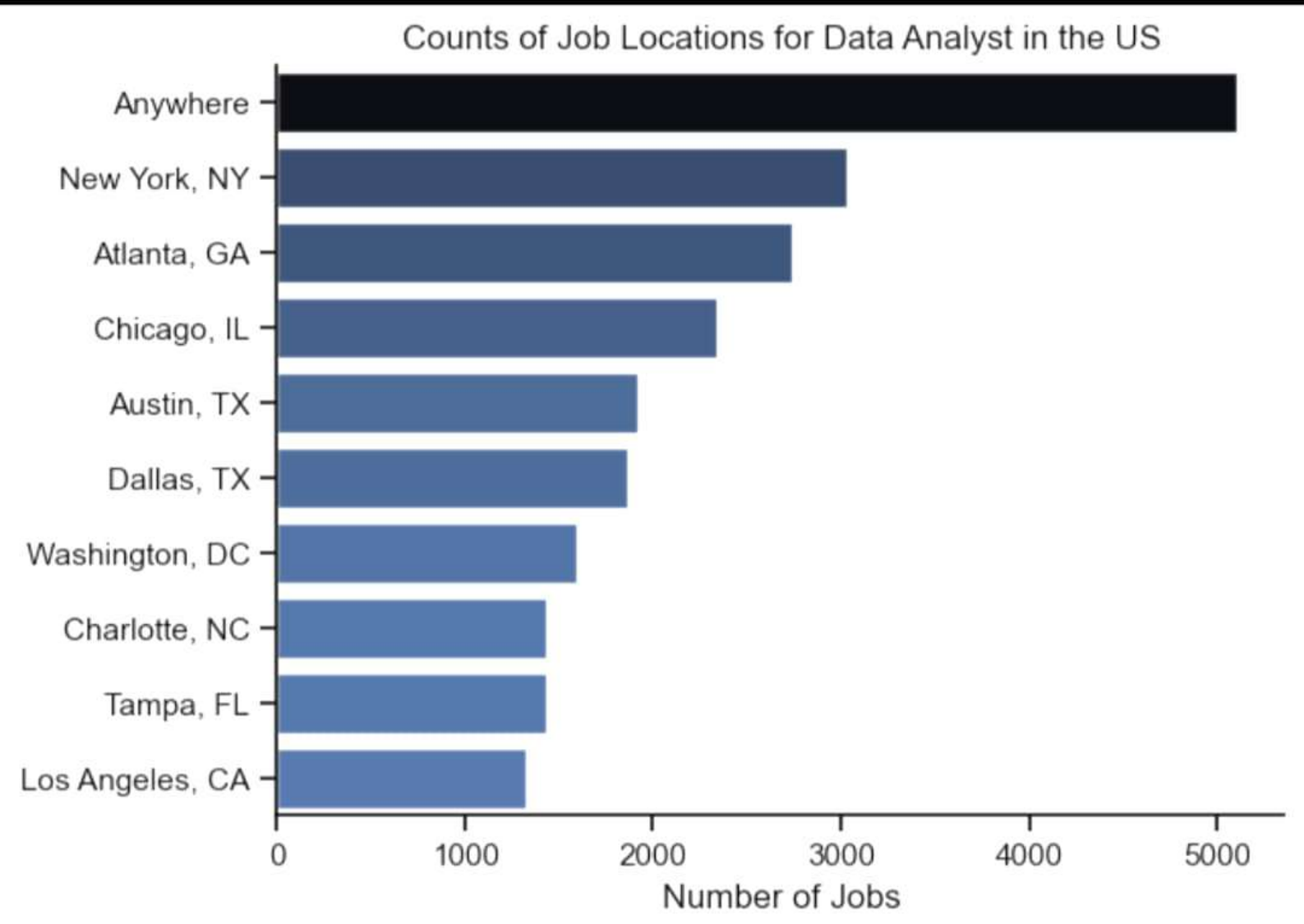
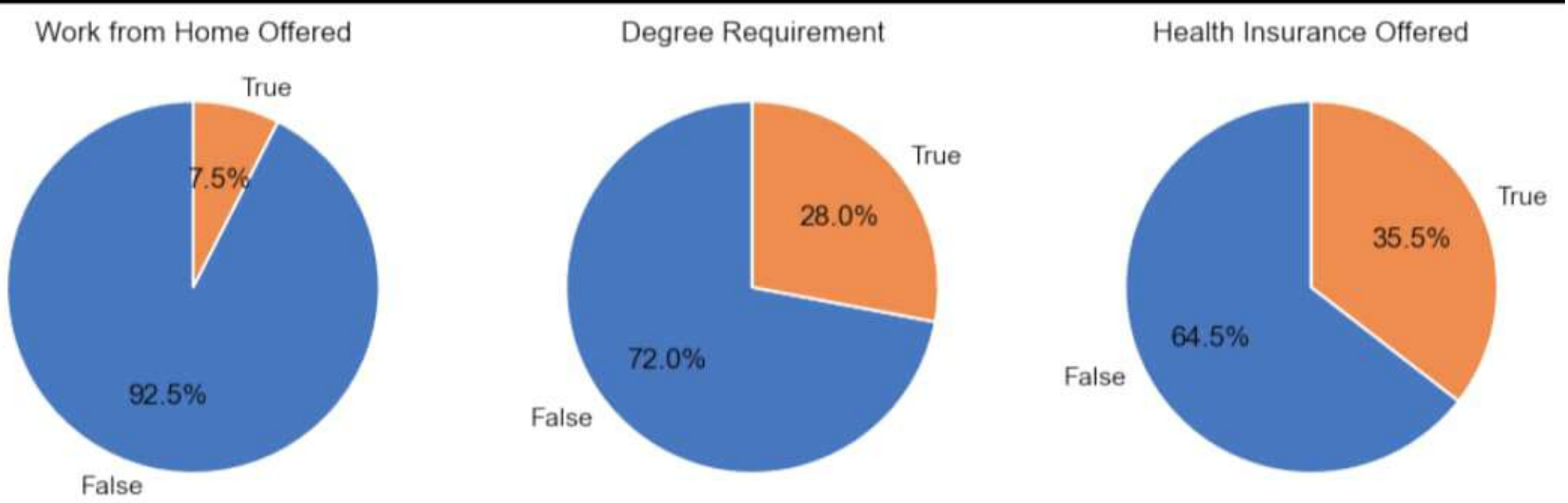

Number of Jobs per Job Title
Data Analyst
Data Engineer
Data Scientist
Business Analyst
Software Engineer
Senior Data Engineer
Senior Data Scientist
Senior Data Analyst
Machine Learning Engineer
Cloud Engineer
0
25000
50000
75000
100000
125000
150000
175000
200000
Number of Jobs

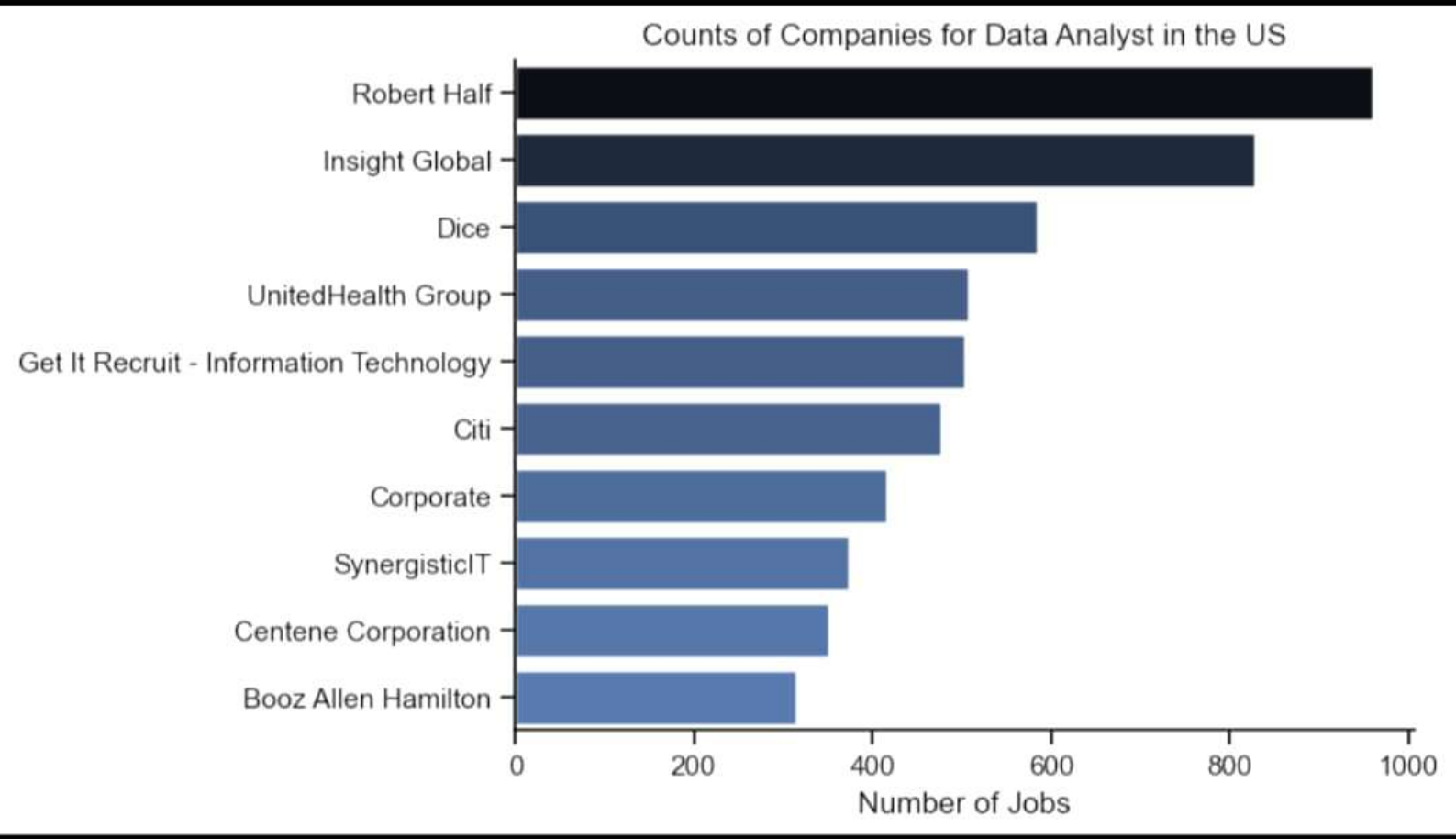

Number of Jobs per Country
United States
India
United Kingdom
France
Germany
Spain
Singapore
Sudan
Netherlands
Italy
Canada
Mexico
Poland
Portugal
Australia
South Africa
Belgium
Philippines
Ireland
Switzerland
0
25000
50000
75000
100000
125000
150000
175000
200000
Number of Jobs


Number of Jobs per Company
Booz Allen Hamilton
Dice
Harnham
Insight Global
Citi
Confidenziale
Listopro
Capital One
Walmart
Robert Half
UnitedHealth Group
Michael Page
Accenture
Deloitte
Guidehouse
SynergisticIT
Capgemini
Upwork
Randstad
IBM
0
500
1000
1500
2000
2500
3000
Number of Jobs


Work from Home Offered
True
8.9%
91.1%
False
Degree Requirement
True
30.6%
69.4%
False
Health Insurance Offered
True
11.0%
89.0%
False


Counts of Job Locations for Data Analyst in the US
Anywhere
New York, NY
Atlanta, GA
Chicago, IL
Austin, TX
Dallas, TX
Washington, DC
Charlotte, NC
Tampa, FL
Los Angeles, CA
0
1000
2000
3000
4000
5000
Number of Jobs


Work from Home Offered
True
7.5%
92.5%
False
Degree Requirement
True
28.0%
72.0%
False
Health Insurance Offered
True
35.5%
64.5%
False


Counts of Companies for Data Analyst in the US
Robert Half
Insight Global
Dice
UnitedHealth Group
Get It Recruit - Information Technology
Citi
Corporate
SynergisticIT
Centene Corporation
Booz Allen Hamilton
0
200
400
600
800
1000
Number of Jobs