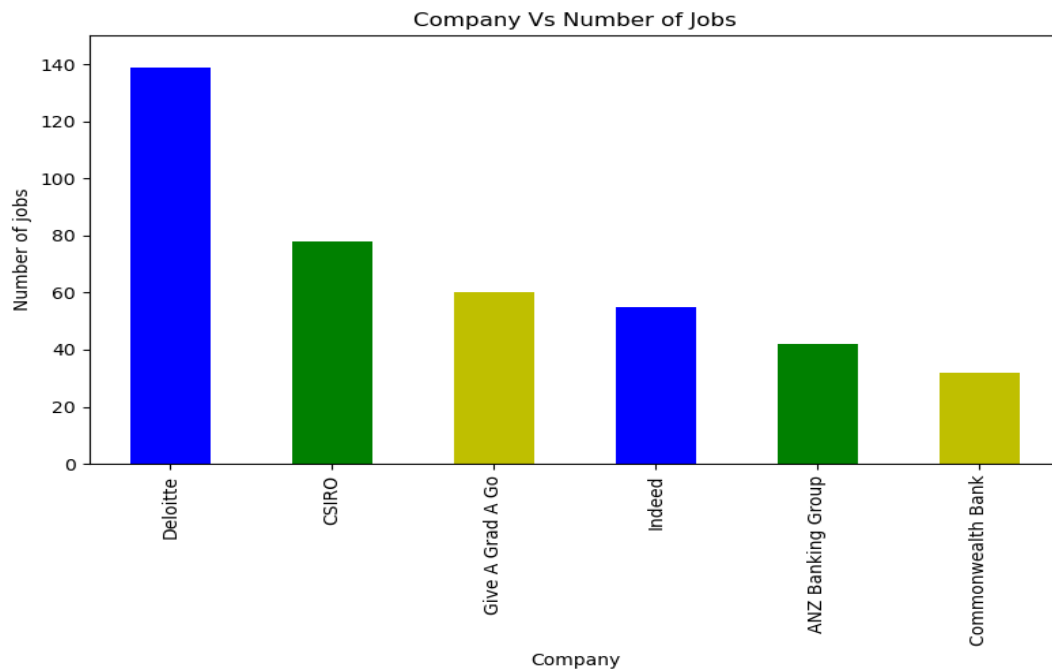# *Summary:*

**Findings by Anam Khalid:**

- **Top Companies in Terms of Jobs**
  Deloitte, CSIRO, Give A Grad A Go, Indeed, ANZ Banking Group and
  Commonwealth Bank are the top 6 companies with the maximum number of
  jobs.



Company Vs Number of Jobs

- **Companies With the Greatest Average of Estimate Low Salary**

  In general, we can get an idea that Profusion Group, Indeed, MALTEM
  Australia, Techtronic Industries (TTI), Palo Alto Networks and Goodman Fielder
  are the top six companies paying the highest estimated low salary.

**Company VS Greatest Estimate Low Salary**
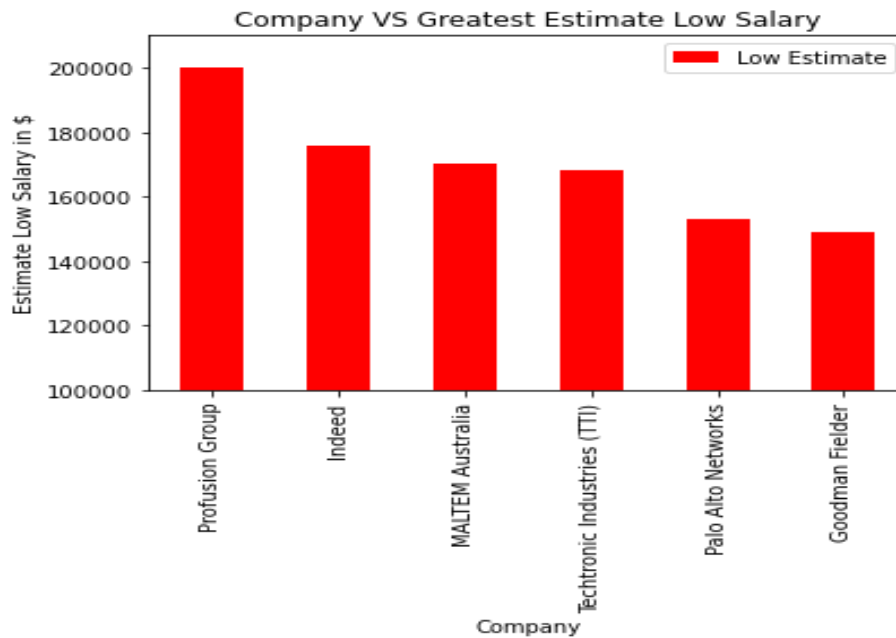
- **Companies With the Greatest Average of Base Salary**

  Indeed, Profusion Group, Techtronic Industries (TTI), MALTEM Australia, Palo Alto Networks and Microsoft are the top six companies paying the highest estimated base salary.

Company VS Greatest Estimate Base Salary

- **Companies With the Greatest Average of High Salary**

  Indeed, Profusion Group, United Nations, Techtronic Industries (TTI), Palo Alto Networks and Neamap are the top six companies paying the highest estimated high salary.

Company VS Greatest Estimate High Salary

- **Top 3 Unique Job Titles and Their Salary Comparison**

  Data Scientists, Data Analysts and Machine Learning Engineers are the job titles with maximum number of opportunities in Data Science. Among these three, from the following boxplot we can have an idea that Data Scientists are being paid the highest, then Data Analysts and Machine Learning Engineers. In the case of Machine Learning Engineers Q1 and Q2 are same that means starting salaries are really good.
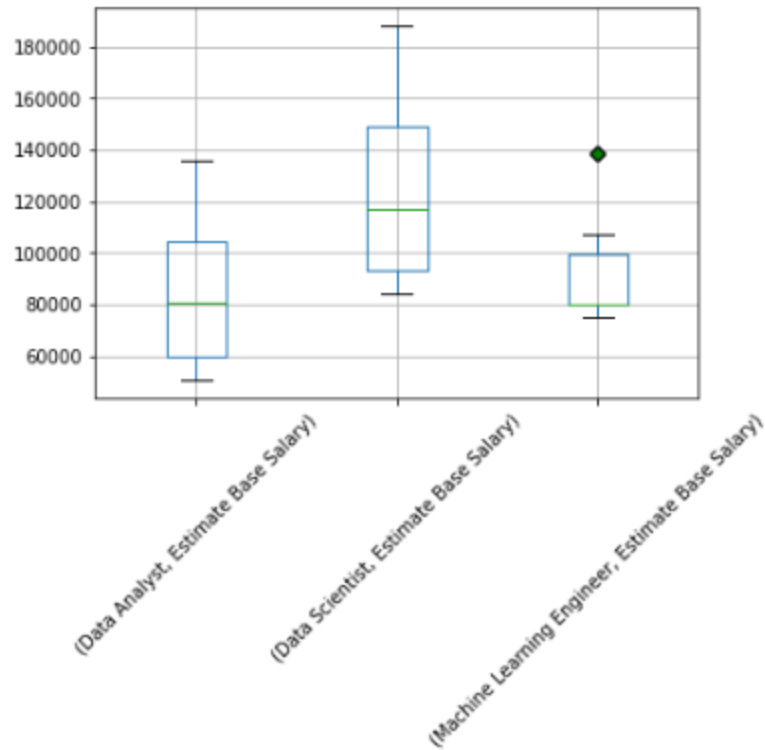
- **Top 5 Job Titles in Terms of Salary**

  The following plot displays the top 5 job titles being paid highest when it comes to estimated base salary. We can see people are getting paid between $1,50,000 and $3,00,000 which is really good.

**Titles VS Salary**

- **Bottom 5 Job Titles in Terms of Salary**

  The following plot displays the bottom 5 job titles being paid highest when it comes to estimated base salary. We can see people are getting paid between $50,000 and $65,000 which is not as good as some other titles are earning in the field.

Titles VS Salary
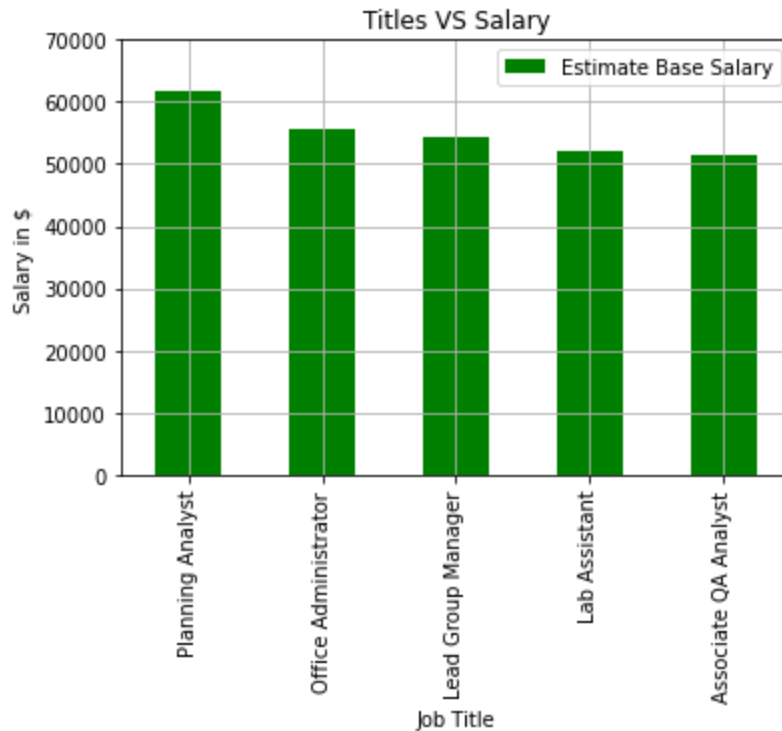
● **Top Ten Companies in Terms of Employee Satisfaction**

The following bar plot displays the top ten companies with the happiest employees. It's an average of 4 factors being provided in the original data.
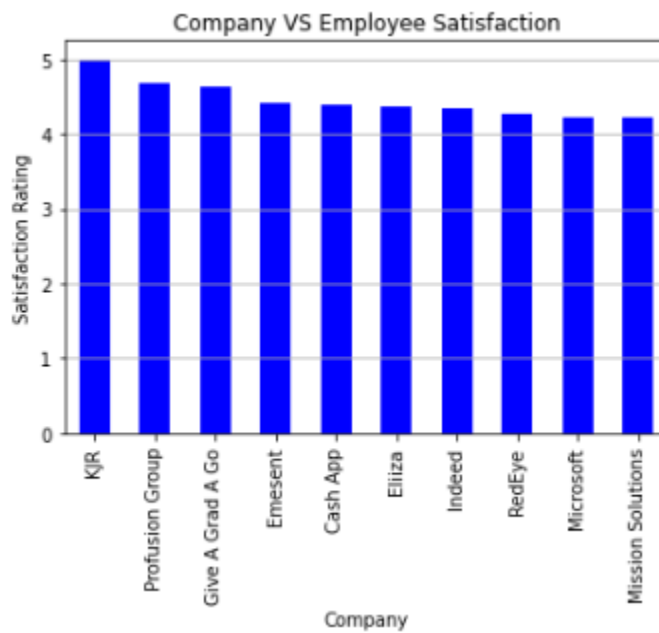


Company VS Employee Satisfaction

● **Bottom Ten Companies in Terms of Employee Satisfaction**

The following bar plot displays the bottom ten companies in terms of employee satisfaction. It's an average of 4 factors being provided in the original data.



Company VS Employee Satisfaction
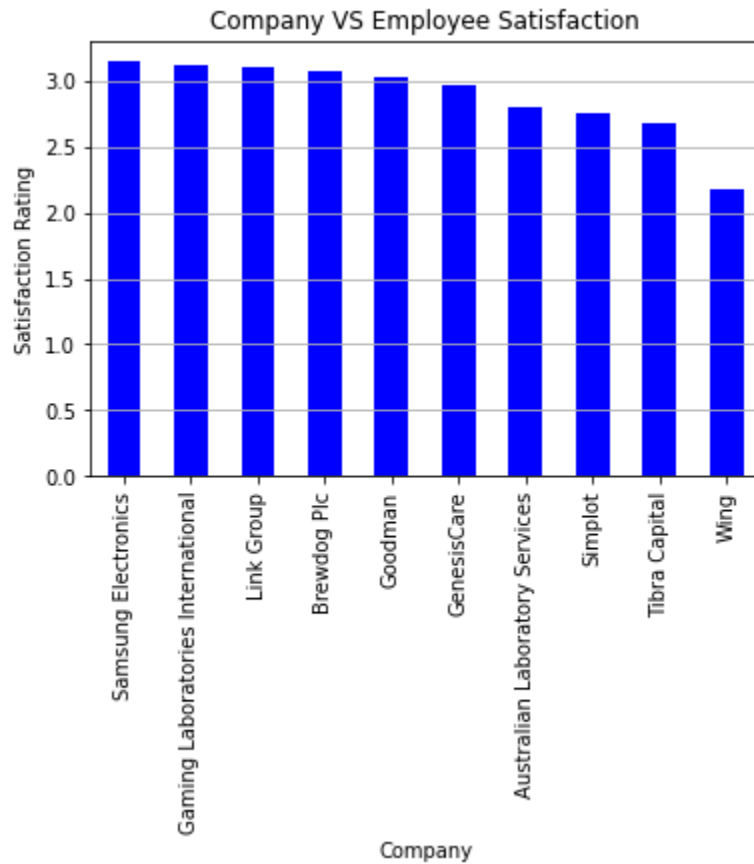
● **Top 10 in Demand Skills by the Companies**

Following bar plot displays the top ten skills demanded by most of the companies where python and sql are the clear winners.

**Conclusion:**

We can analyze that people are getting paid differently in the same field. The potential reasons are the skills possessed by the individual job titles. We can also see that there are some companies that pay well and also have the most satisfied employees as well.

**Findings by Nishant Patel:**

- **Data science job opportunities in different states of Australia**
  NSW recorded the highest data science job opportunities followed by victoria while NT recorded lowest data science job opportunities.
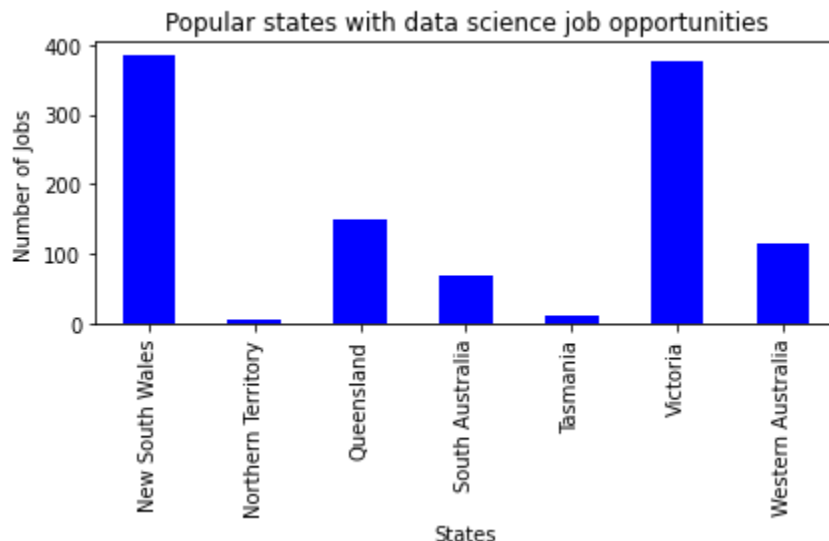


- **Explore data from two popular job types(Company-Public and Company-Private) and compare this data to the amount of job opportunities.**
  so we can find out that Company-Public has the highest data science job opportunities compared to other one.

Popular Company Type
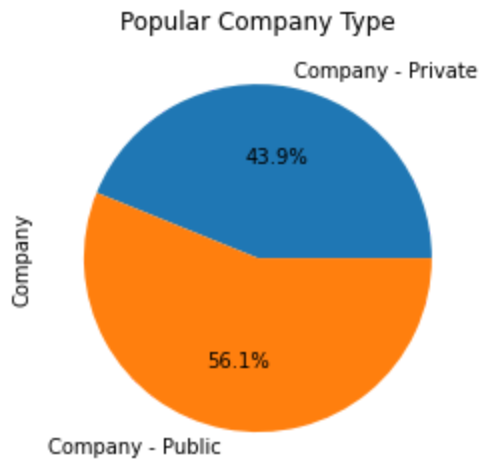
- **Use a binning method**
  slice estimate base salary in a certain lot and analyze those salaries as lower, median and highest with Estimate base salary
- **Use binning method**
  slice company size in a certain lot and compare that one with size of company(with total number of employees)
- **Compare the job type with estimate base salary**
  We analyzed that private companies provide higher salaries compared to others.



Job type vs Estimate base salary
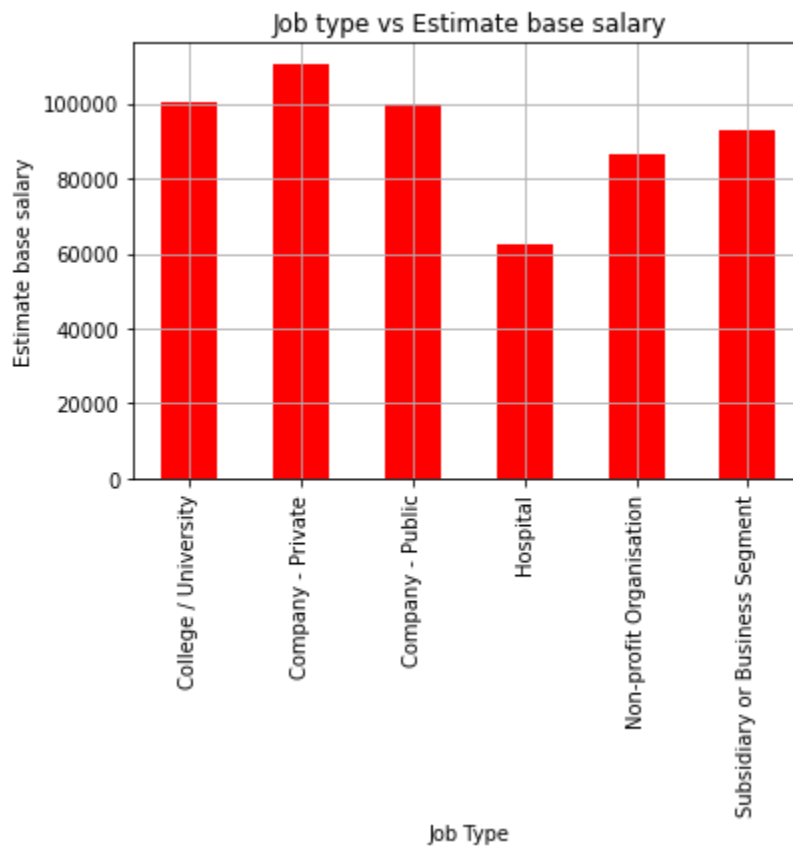
**Findings by John Antony:**

- **Top and bottom 10 Companies in terms of company ratings and employee satisfaction by setting conditions greater than or equal to 3.5 and less than 4 respectively**

  It was interesting to see that none of the well known companies broke into the top 10 mark. We can see which factors are contributing to the companies high rating ( eg Compensation and Benefits, Company Culture and Values and Company Work Life Balance.

**Top 10 Company**

[32]:

| Company | Company Rating | Company Career Opportinities | Compensation and Benefits | Company Culture and Values | Company Work Life Balance |
|---|---|---|---|---|---|
| Profusion Group | 4.9 | 4.2 | 4.9 | 4.9 | 4.7 |
| Give A Grad A Go | 4.8 | 4.6 | 4.5 | 4.7 | 4.7 |
| KJR | 4.7 | 5.0 | 5.0 | 5.0 | 5.0 |
| Eliiza | 4.6 | 4.5 | 4.0 | 5.0 | 4.0 |
| Mission Solutions | 4.5 | 3.9 | 4.0 | 4.5 | 4.5 |
| Fuse Recruitment | 4.5 | 4.1 | 3.9 | 3.9 | 4.1 |
| Defence Services | 4.5 | 3.9 | 4.0 | 4.5 | 4.5 |
| Cash App | 4.5 | 4.5 | 4.3 | 4.6 | 4.2 |
| RedEye | 4.5 | 4.1 | 4.2 | 4.5 | 4.3 |
| TekWissen LLC | 4.4 | 4.2 | 3.7 | 4.3 | 4.3 |

**Bottom 10 Company**

t[33]:

| Company | Company Rating | Company Career Opportinities | Compensation and Benefits | Company Culture and Values | Company Work Life Balance |
|---|---|---|---|---|---|
| Wing | 2.1 | 1.8 | 2.7 | 2.0 | 2.2 |
| Simplot | 3.0 | 2.6 | 3.0 | 2.6 | 2.8 |
| GenesisCare | 3.0 | 3.2 | 3.0 | 3.0 | 2.7 |
| Tibra Capital | 3.1 | 2.7 | 2.8 | 2.5 | 2.7 |
| Australian Laboratory Services | 3.1 | 2.7 | 2.6 | 3.0 | 2.9 |
| Link Group | 3.2 | 3.1 | 2.8 | 3.2 | 3.3 |
| DAC Enterprises Pty Ltd | 3.3 | 3.3 | 3.6 | 3.2 | 2.7 |
| Brewdog Plc | 3.3 | 3.3 | 3.3 | 3.0 | 2.7 |
| Medpace, Inc. | 3.3 | 3.4 | 2.9 | 3.2 | 3.1 |
| AMP Limited | 3.3 | 3.0 | 3.1 | 3.2 | 3.9 |

- **Correlation between Company rating vs Estimated Base Salary and Company rating vs Compensation and Benefits by using linear regression.**
  Based on our findings we can conclude that Company rating vs Estimated Base Salary had a weak correlation and Company rating vs Compensation and Benefits had a strong correlation.

The correlation for Average company rating vs. estimated base salary is 0.21443952658920828.

Average company rating vs. estimated base salary



$$y = 16094.64x + 40720.71$$
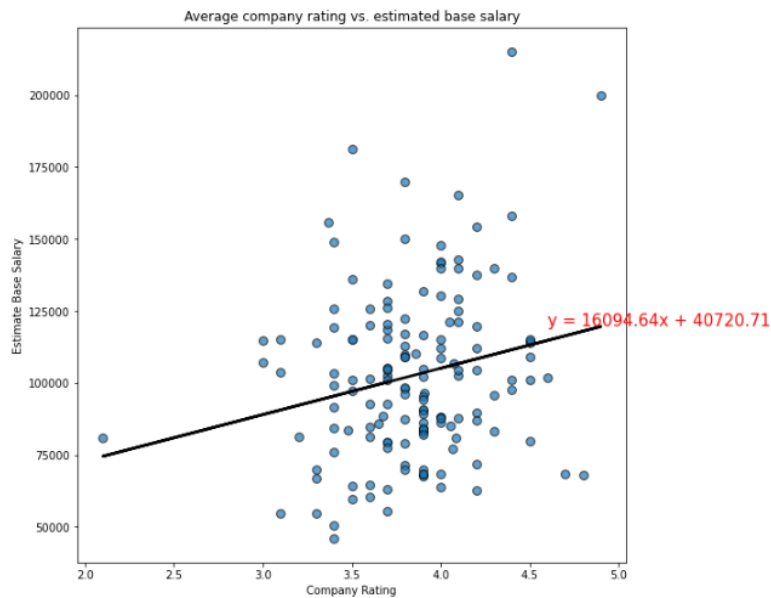
The correlation for Average company rating vs. Compensation and Benefits rating is 0.7065956495007671.

Average company rating vs. Compensation and Benefits rating



$$y = 0.78x + 0.61$$
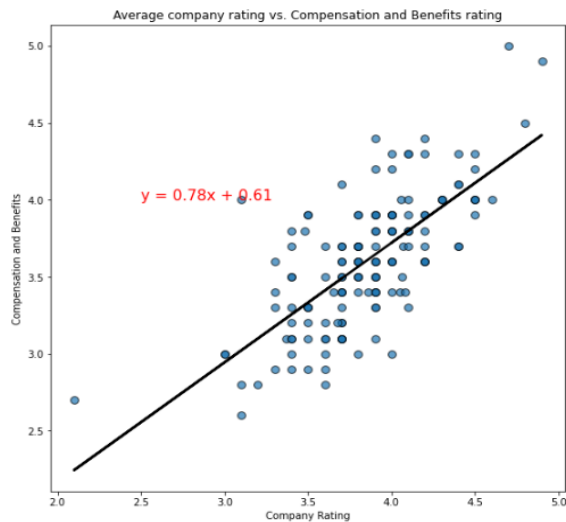
- **Using Gmaps API to create a heatmap that we can use to visualize which locations have more employment opportunities and highest estimated salary when it comes to data science. ·**

For this we created two DataFrames, one with max salary, average salary and number of jobs and the second one had a list of cities, latitude and longitude. We then merged them into one DataFrame and

created a heat map with marker layer using Geocode API. From this we can visualize which locations have the most opportunities and max salary.

| | Job Location | Max_salary | Average_Salary | Count_Jobs | State |
|---|---|---|---|---|---|
| 0 | Adelaide | 188296 | 97493.344828 | 58 | South Australia |
| 1 | Adelaide | 188296 | 97493.344828 | 58 | South Australia |
| 2 | Adelaide | 188296 | 97493.344828 | 58 | South Australia |
| 3 | Adelaide | 188296 | 97493.344828 | 58 | South Australia |
| 4 | Adelaide | 188296 | 97493.344828 | 58 | South Australia |
| ... | ... | ... | ... | ... | ... |
| 1054 | Wollongong | 115000 | 114351.500000 | 18 | New South Wales |
| 1055 | Wollongong | 115000 | 114351.500000 | 18 | New South Wales |
| 1056 | Wollongong | 115000 | 114351.500000 | 18 | New South Wales |
| 1057 | Wollongong | 115000 | 114351.500000 | 18 | New South Wales |
| 1058 | Wollongong | 115000 | 114351.500000 | 18 | New South Wales |

1059 rows × 5 columns

| | Job Location | Max_salary | Average_Salary | Count_Jobs | State | lat | lng |
|---|---|---|---|---|---|---|---|
| 0 | Adelaide | 188296 | 97493.344828 | 58 | South Australia | -34.928499 | 138.600746 |
| 1 | Adelaide | 188296 | 97493.344828 | 58 | South Australia | -34.928499 | 138.600746 |
| 2 | Adelaide | 188296 | 97493.344828 | 58 | South Australia | -34.928499 | 138.600746 |
| 3 | Adelaide | 188296 | 97493.344828 | 58 | South Australia | -34.928499 | 138.600746 |
| 4 | Adelaide | 188296 | 97493.344828 | 58 | South Australia | -34.928499 | 138.600746 |
| ... | ... | ... | ... | ... | ... | ... | ... |
| 1054 | Wollongong | 115000 | 114351.500000 | 18 | New South Wales | -34.424834 | 150.893113 |
| 1055 | Wollongong | 115000 | 114351.500000 | 18 | New South Wales | -34.424834 | 150.893113 |
| 1056 | Wollongong | 115000 | 114351.500000 | 18 | New South Wales | -34.424834 | 150.893113 |
| 1057 | Wollongong | 115000 | 114351.500000 | 18 | New South Wales | -34.424834 | 150.893113 |
| 1058 | Wollongong | 115000 | 114351.500000 | 18 | New South Wales | -34.424834 | 150.893113 |

1059 rows × 7 columns

**Heat Map with Marker layer**
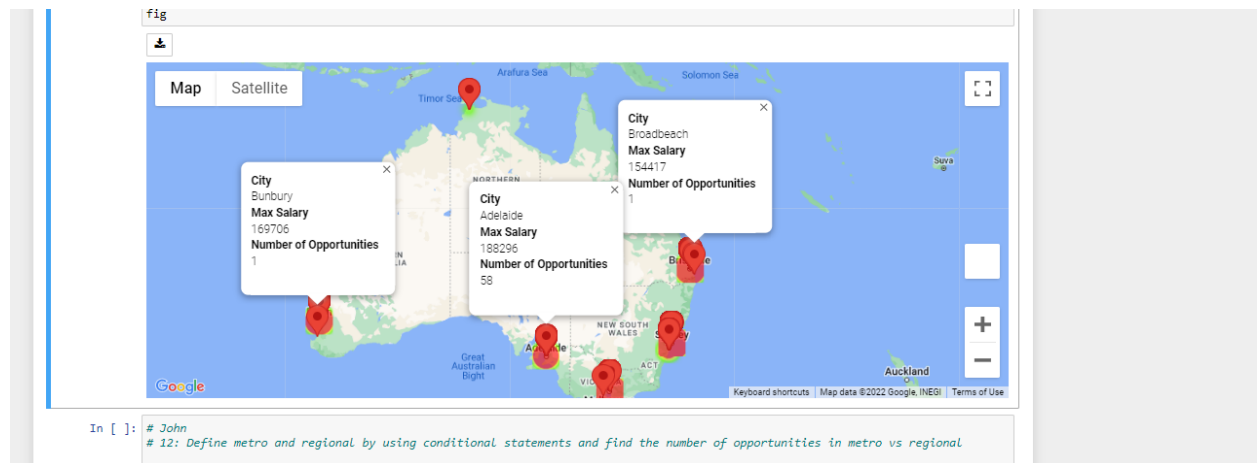
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fig
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City
Bunbury
**Max Salary**
169706
**Number of Opportunities**
1

City
Adelaide
**Max Salary**
188296
**Number of Opportunities**
58

City
Broadbeach
**Max Salary**
154417
**Number of Opportunities**
1

```
In [ ]: # John
        # 12: Define metro and regional by using conditional statements and find the number of opportunities in metro vs regional
```
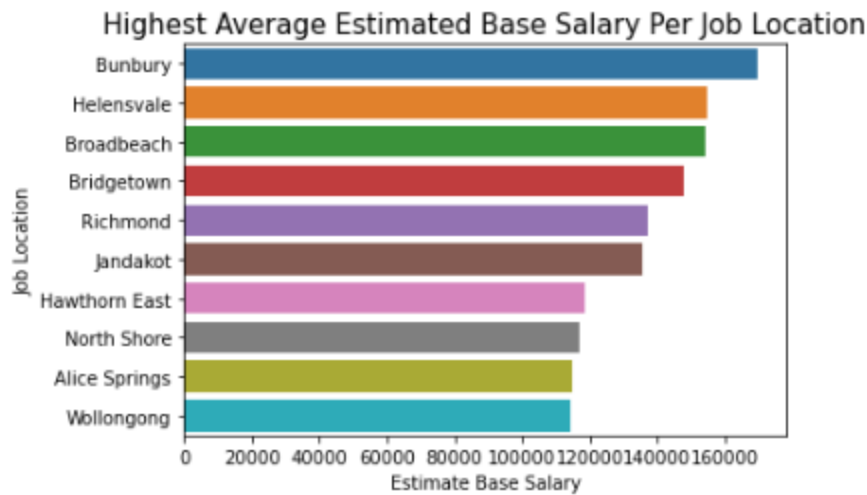
## -Define metro and regional by using conditional statements and find the number of opportunities and average base salary in metro vs regional.

Based on the below charts we can conclude that regional locations have higher base salaries.

Highest Average Estimated Base Salary Per Job Location
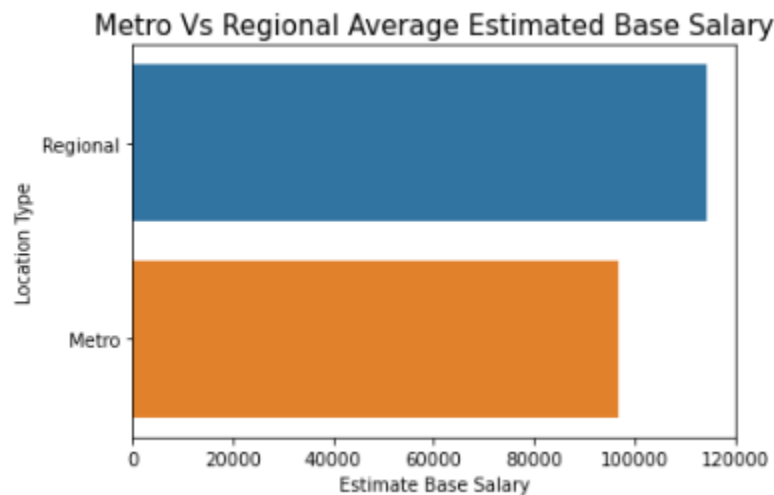
Based on the below charts we can conclude that Metro locations have more job opportunities. Also can conclude that for metro locations, Sydney has the most opportunities and for regional locations it is Wollongong.

.



Top 10 Locations for Data Science Jobs

Top 10 Metro Locations for Data Science Jobs


Top 10 Regional Locations for Data Science Jobs