

Visual Analytics Project Presentation

Group 2

October 5th, 2023

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Why LinkedIn?



Introduction and Background

- **LinkedIn** is one of the most widely used social networking sites for professionals and job seekers.
- Our project aimed to analyze a comprehensive dataset of **15,000+ job postings** on LinkedIn over a two-day period.
- The **project's outcomes** include comprehensive data visualizations, actionable insights for job seekers and employers, trends in job listings, and an understanding of the relationship between skills, pay, and job demand.

Objectives and Goals

The project is mainly targeted at job seekers looking for certain requirements and looking to leverage their skills in their desired fields.

- Enhancing Job Knowledge
- Streamlining Job Search
- Understanding the Market

The goal is to empower students and job seekers to make informed decisions with our interactive dashboard.

Datasets

- We intend to use the “**job_postings.csv**” dataset for this project.
- We found it on **Kaggle**, and it has about 15,887 job listings posted on LinkedIn over 2 days and 27 attributes of these job listings.
- Arsh Kon from Kaggle utilized LinkedIn's backend search API to collect the data.
- The **variables** that we are interested in for the project include: Title, Job roles, work type, formatted_work_type, location, views, sponsored, formatted_experience_level, salaries, application URL, listing dates
- The dataset includes **city-level job listings** across all US states.

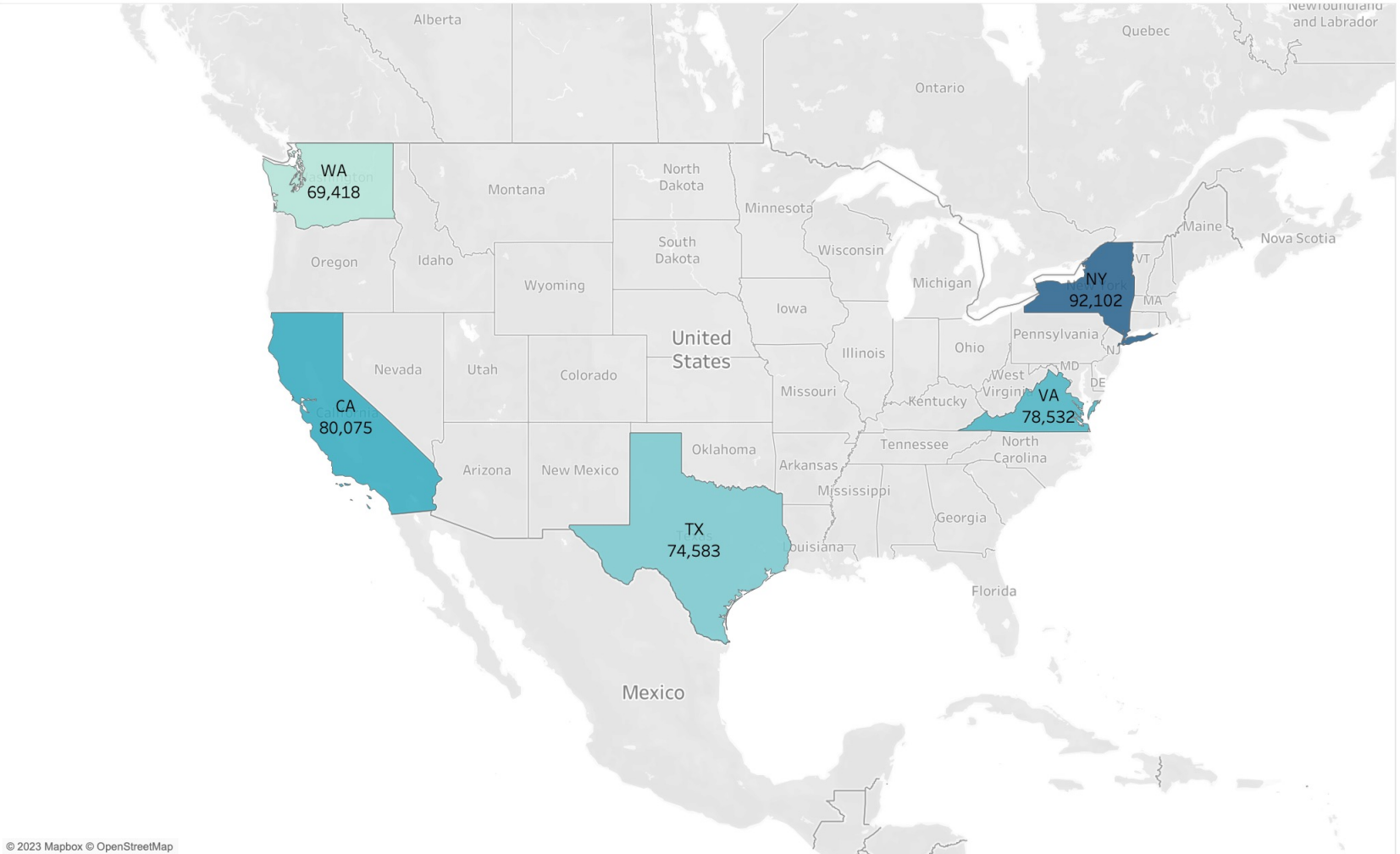
Visualizations

Top 5 states by average salary

AVG(Average Salary)



Locations by Average Salary



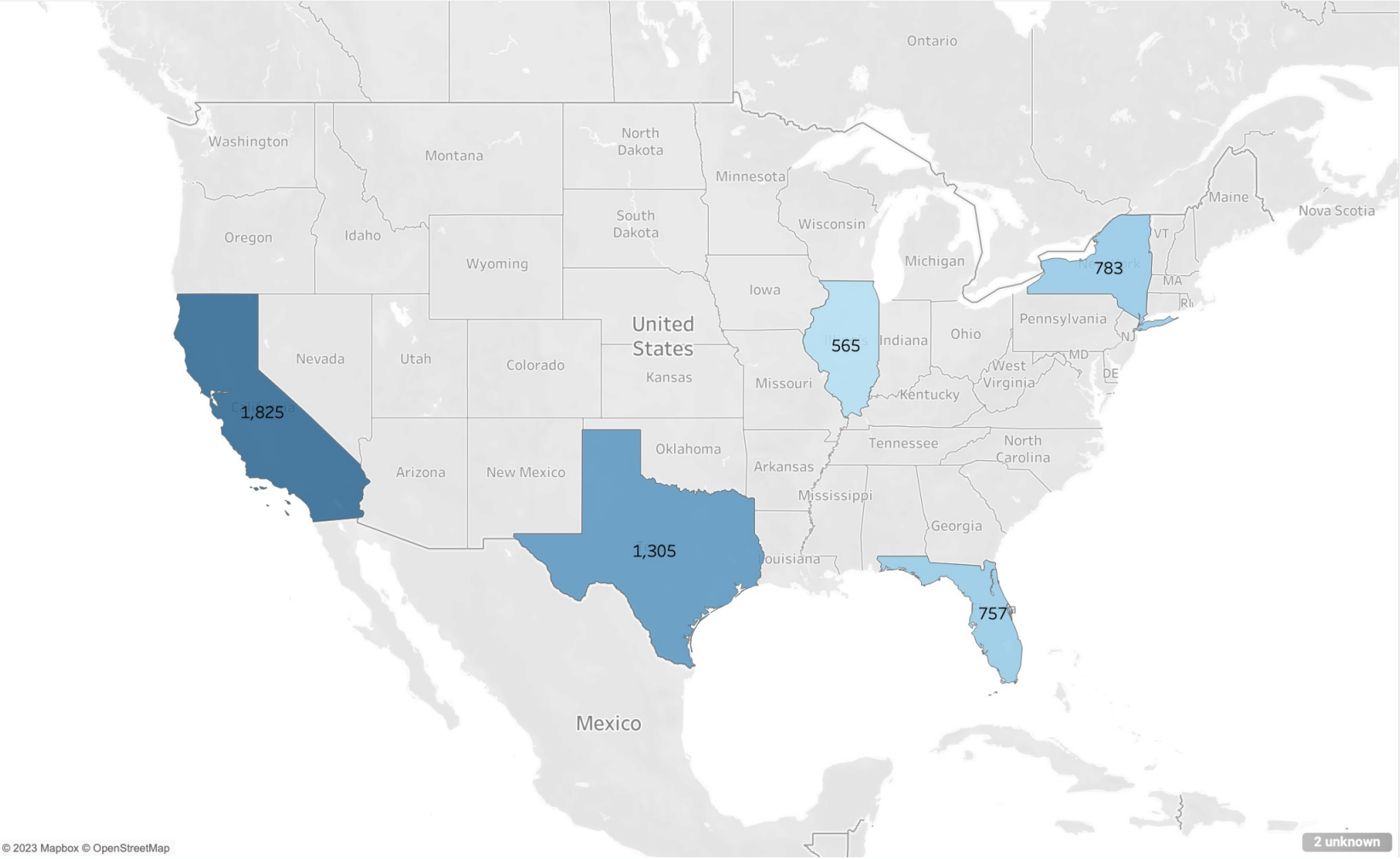
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Factors affecting Salary

- Cost of Living
- High-Demand Industries
- Urban Centres
- Economic Prosperity
- High-Tech & Creative Sectors

Popular job locations across states

Listing Popularity



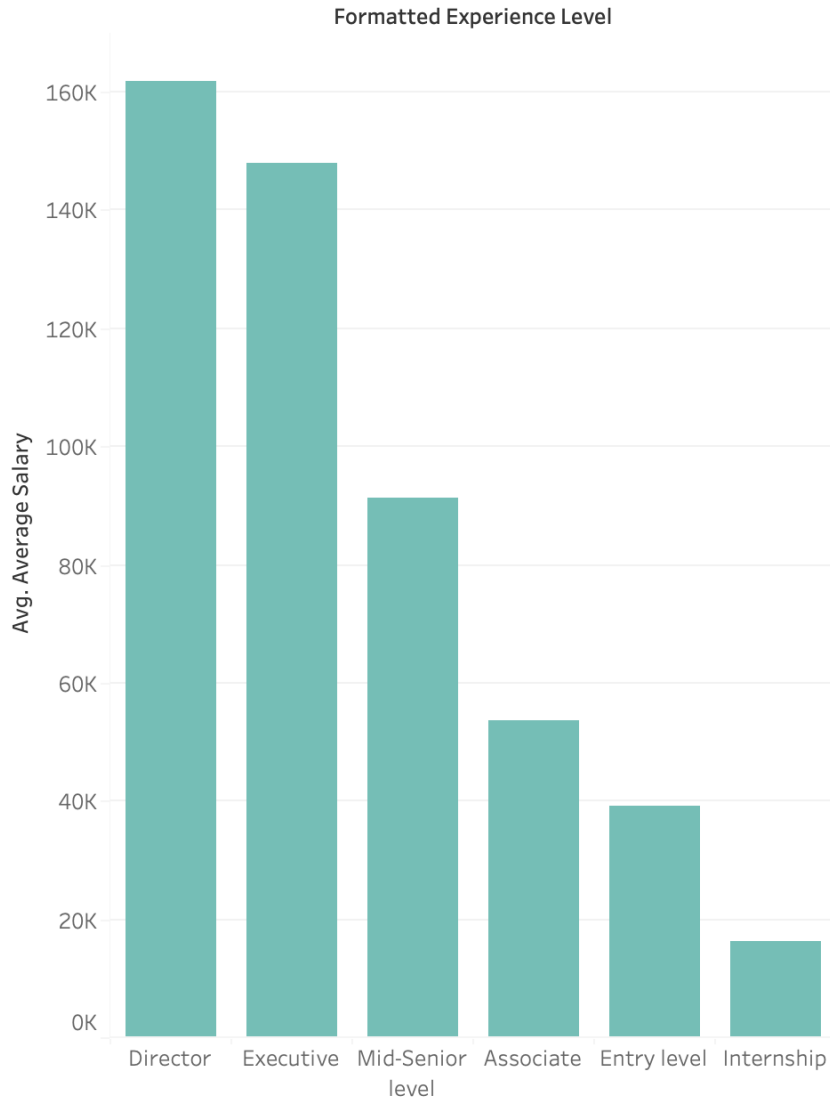
CNT(job_postings.csv)



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*Insights into the pay scale based
on level of experience*

Experience Level at Average Salary



•Enhancing Experience vs. Salary Viz in Tableau for further analysis:

1. Segmentation - By Industry and Job Role
2. Geographical Mapping - Regional salary trends
3. Interactive Filters - Custom data exploration
4. Drill-Down Features - Detailed data insights
5. Trend Lines - Visualize overall growth patterns

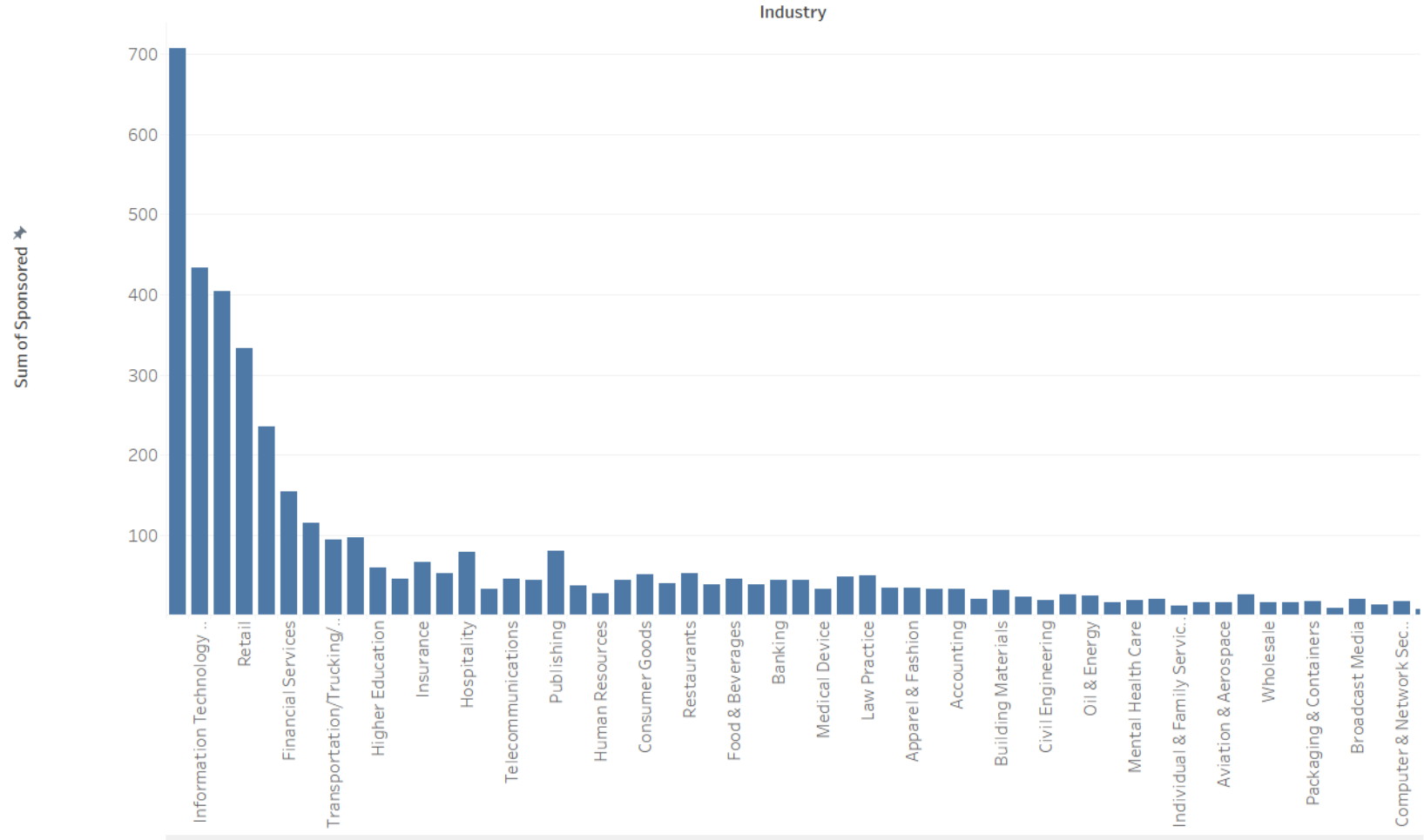
*Crosstab showing the number of
Remote and Sponsored Jobs across
various Industries*

Sponsored, Remote vs Industry

Industry	Remote Allowed	Sponsored
Staffing & Recruiting	364.0	707.0
Information Technology &..	509.0	434.0
Hospital & Health Care	116.0	404.0
Retail	47.0	333.0
Computer Software	283.0	236.0
Financial Services	121.0	154.0
Construction	12.0	116.0
Real Estate	11.0	97.0
Transportation/Trucking/..	12.0	95.0
Publishing	1.0	80.0
Hospitality	4.0	79.0
Insurance	86.0	67.0
Higher Education	30.0	60.0
Management Consulting	41.0	53.0
Restaurants	1.0	52.0
Consumer Goods	10.0	51.0
Law Practice	15.0	50.0
Pharmaceuticals	24.0	49.0
Food & Beverages	21.0	46.0
Telecommunications	22.0	45.0
Non-profit Organization ..	22.0	45.0
Marketing & Advertising	36.0	44.0
Government Administrati..	10.0	44.0
Banking	11.0	44.0
Automotive	6.0	44.0
Food Production	4.0	40.0
Environmental Services	5.0	39.0
Biotechnology	46.0	39.0
Electrical & Electronic Ma..	9.0	37.0
Mechanical Or Industrial ..	14.0	35.0
Apparel & Fashion	3.0	35.0
Utilities	16.0	33.0
Medical Device	17.0	33.0
Internet	21.0	33.0
Accounting	10.0	33.0

*Type of jobs and sponsorship
across various industries*

Sponsor work type vs industry

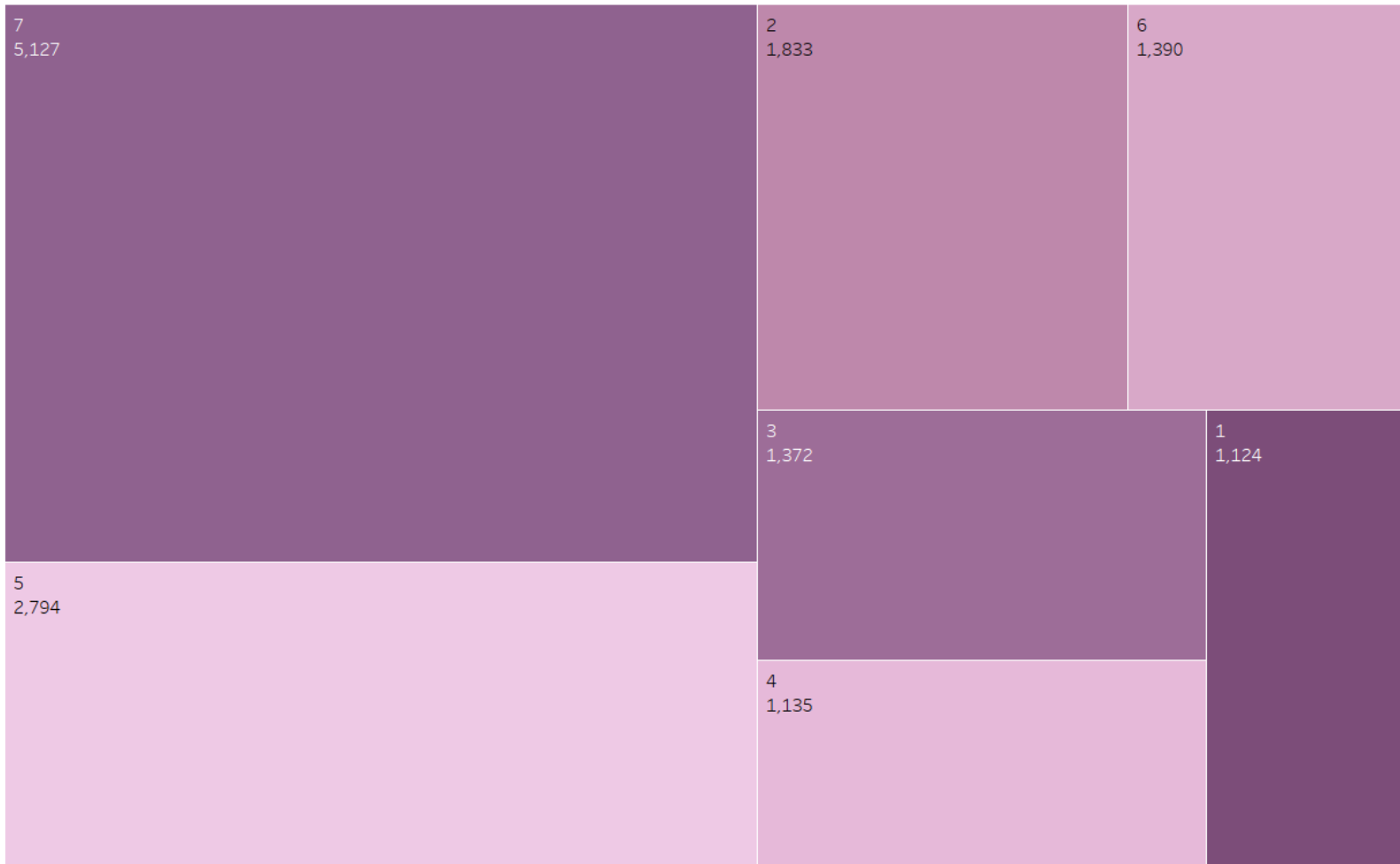


Formatted Work Type

- (All)
- Null
- Contract
- Full-time
- Internship
- Other
- Part-time
- Temporary
- Volunteer

*Tree map showing the Job Count
by Company Size*

Job Count by Company Size



AVG(Sponsored)

0.26271 0.31584

Company Sizes: 1 (Small) to Size 7 (Very large)

Limitations of the Data

1

Data Availability

Comprehensive and up-to-date data was not readily available. For instance, job counts gathered was only for 2 days which skews generated outputs.

2

Data Quality

The data collected was inconsistent in certain areas, incomplete or outdated, which could have led to inaccurate analysis.

3

Historical Bias

We are not relying on real time that might not account for recent market dynamics.

Conclusion

Insights

- **Geographical Trends:** States like California emerge as hubs for job opportunities.
- **Industry Insights:** Clear patterns on sponsorships and work types across industries aid in targeted job searches.
- **Skill Mapping:** Identifying in-demand skills by industry and pay ranges can help students target their desired job roles.

Further steps beyond Tableau can include predictive models and analysis to identify trends that can help job seekers!

Thank You

We wish you luck with your job search!

