Data Coin

Influential Factors on Data Scientist Salaries as Reported on Glassdoor

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Data Scientist

Job Search

Salary Range

Per Job Posting

Regression Model on Data Scientist Salaries as Reported on Glassdoor

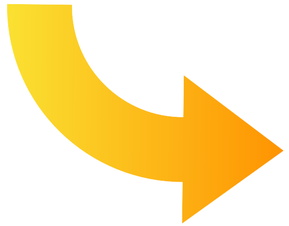
Model Notes

- 1,305 Samples
- 36 cities in the United States
- Scraped using Selenium

- Generated Features:
  - Age
  - Geolocation
  - Industry Map
- Binary Mapping:
  - Additional Pay
  - Internship
- Interaction term
  - West & Tech Industry
- Target Variable:
  - Salary

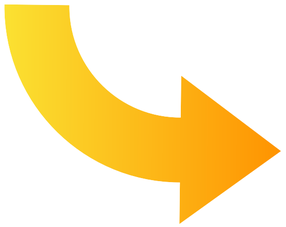
Glassdoor Salary Posting Search by City

- **Salary**
- **Salary Range**
  - Low, 25%, 75%, High
- **Additional Pay**
  - Cash Bonus
  - Stock Bonus
- **Total Pay**
- **Glassdoor Review Data**
  - Reviews, Jobs, Salaries, Interviews, Benefits, Confidence Score
- **Internship**
- **City**



Glassdoor Company Information by Result

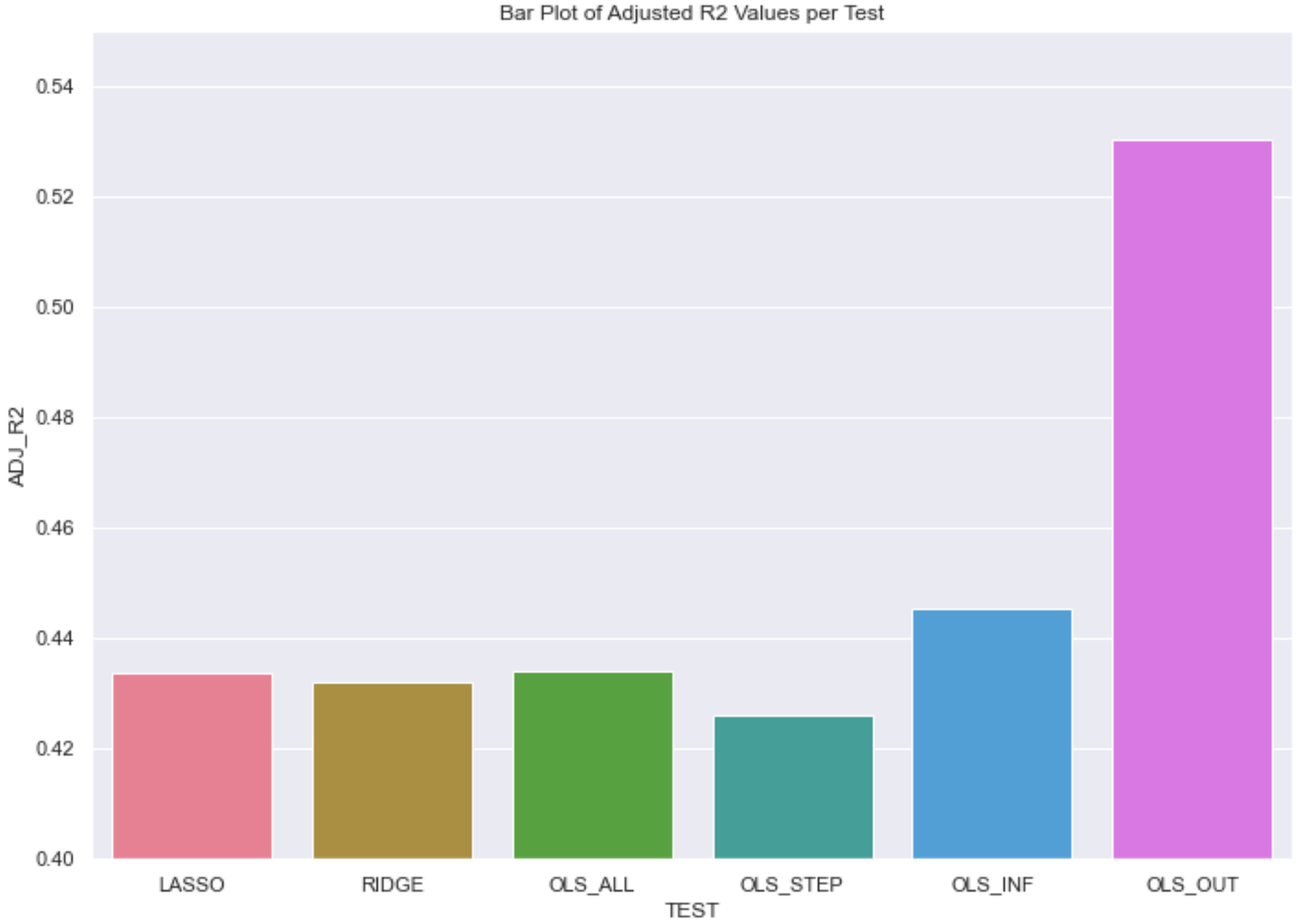
- **Company Type**
  - Public, Private, Government, Education, Subsidiary
- **Company Size**
  - Categorical
- **Industry**
- **Headquarter**
- **Year Founded**

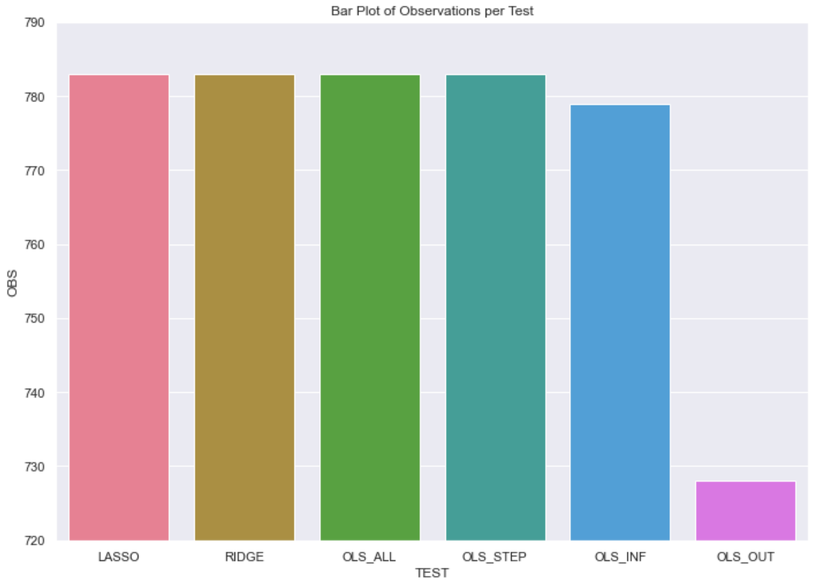


Numbeo Cost of Living Index by City

- **Cost of Living**
- **Purchasing Power**
- **Rent**
- **Rent + Cost of Living**

Model Performance



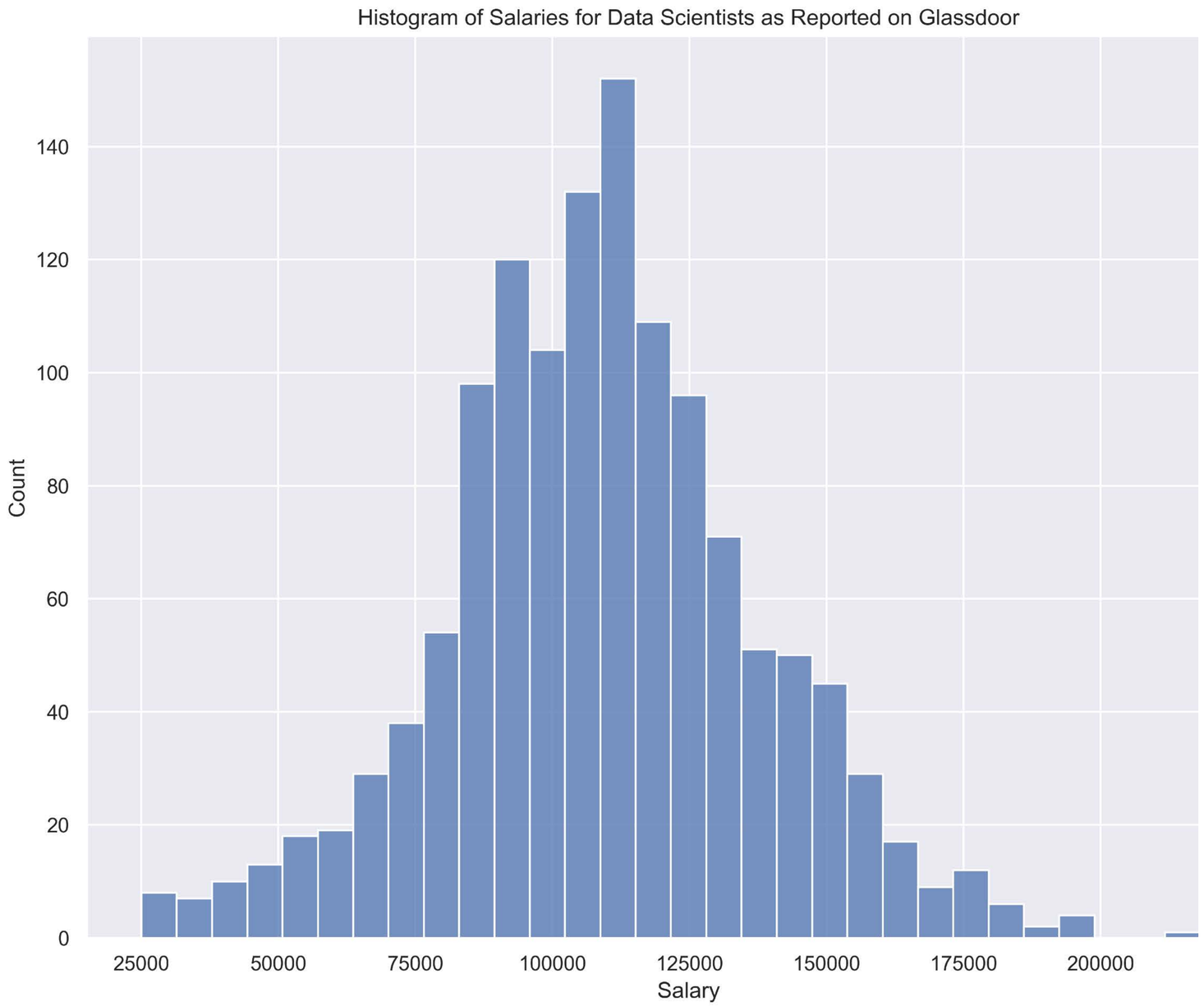


Performance Notes

- Best R^2 Value:
  - Ordinary Least Squares with Outliers Removed, *Adjusted R^2 = .530*
  - *Outliers Removed:* 55
- Second Best R^2 Value:
  - Lasso CV, *Adjusted R^2 = 433*
  - *No outliers removed*
  - *MAE = 16138.464503*
  - *RMSE = 20873.19*
- *Final Model: Lasso*
  - *MAE = 16,669*
  - *RMSE = 22,055*
  - *Adjusted R2 = .401*

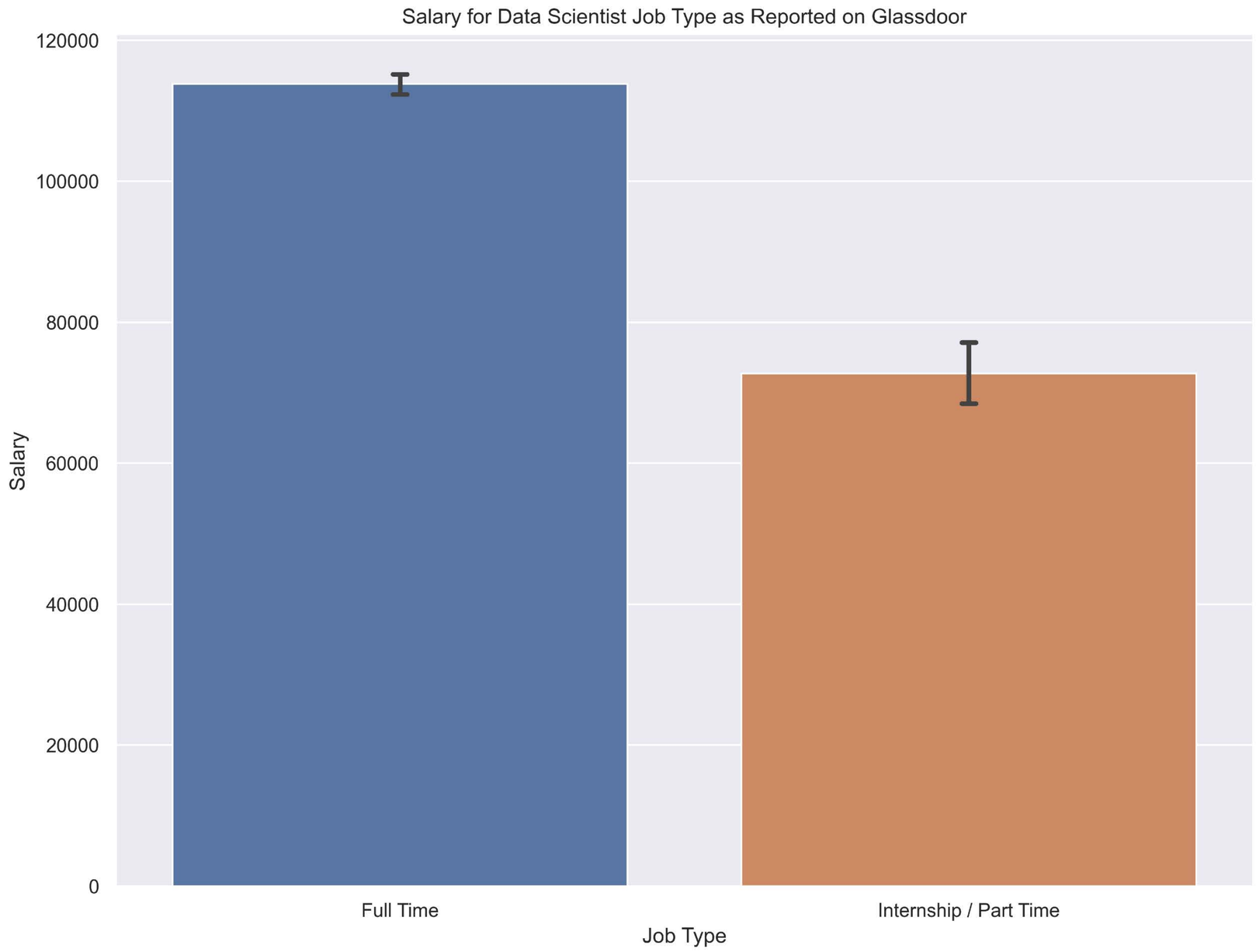
Data Scientist Salary

Mean: 109,038.829
Standard Dev: 28, 715



Internship

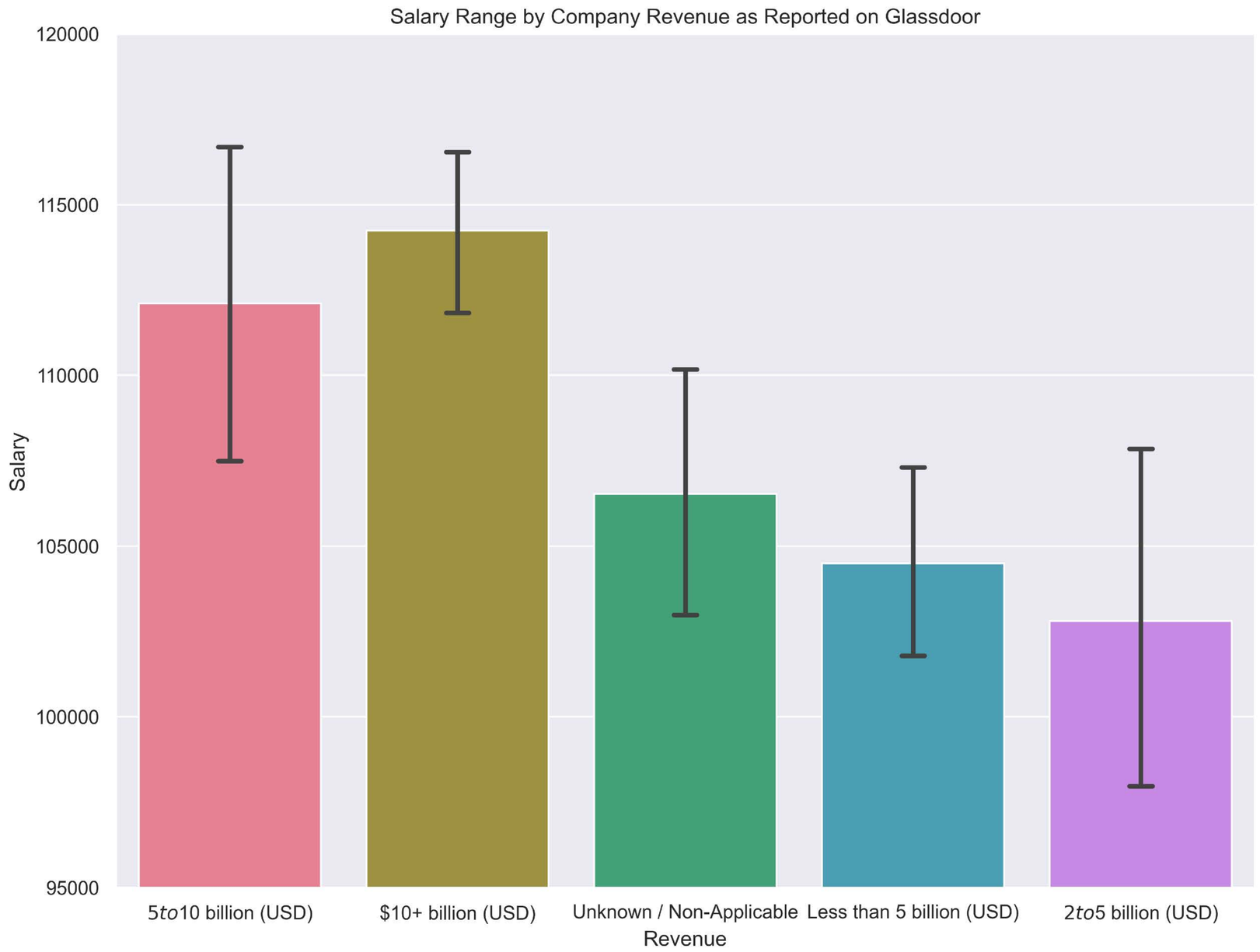
⬇37953.57



Revenue

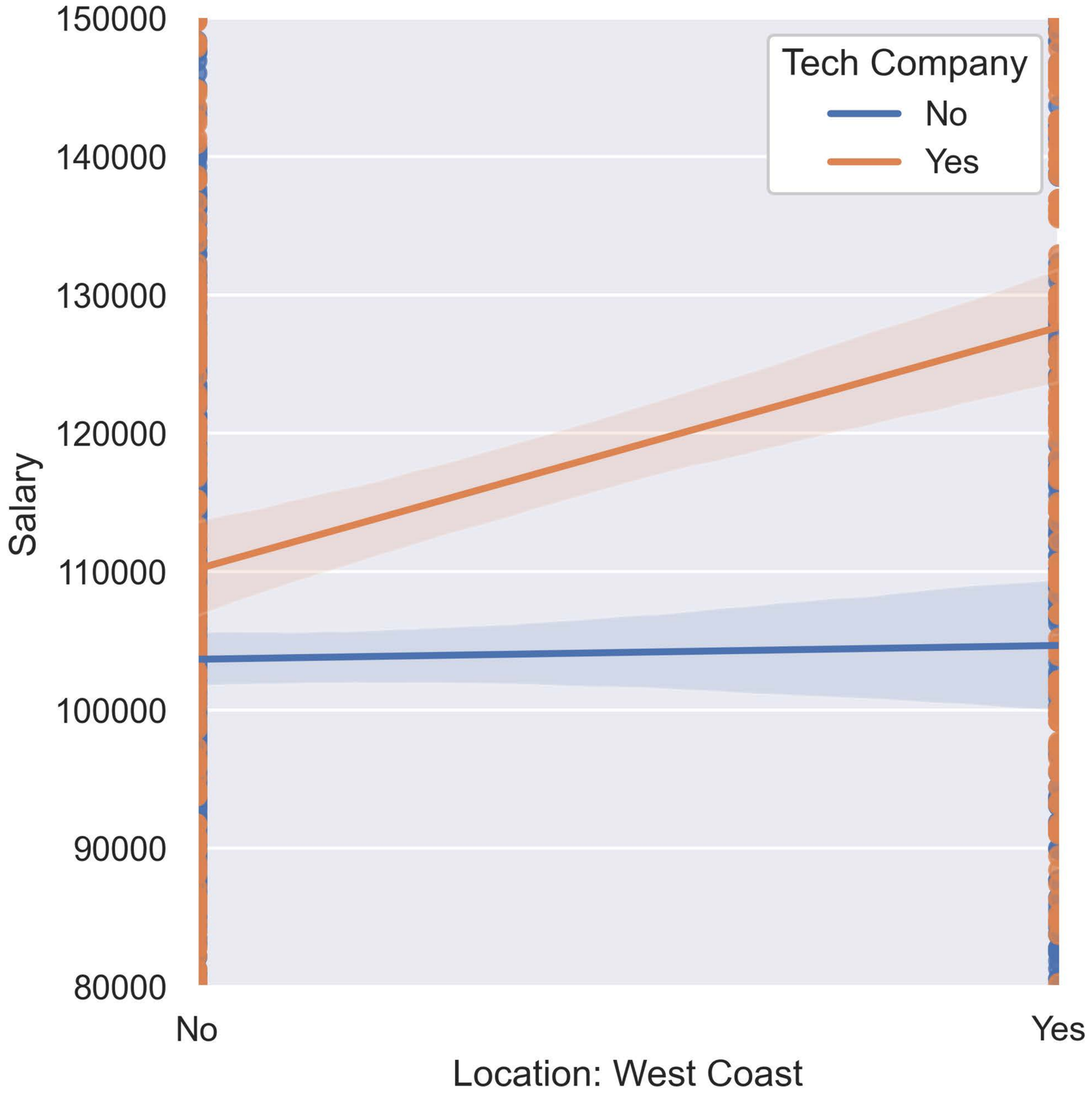
⬇ 15144.99

(2 to 5 Billion compared to 10 + Billion a year)



Interaction: West Coast & Technology

⬆ 11300.91



Interaction: West Coast

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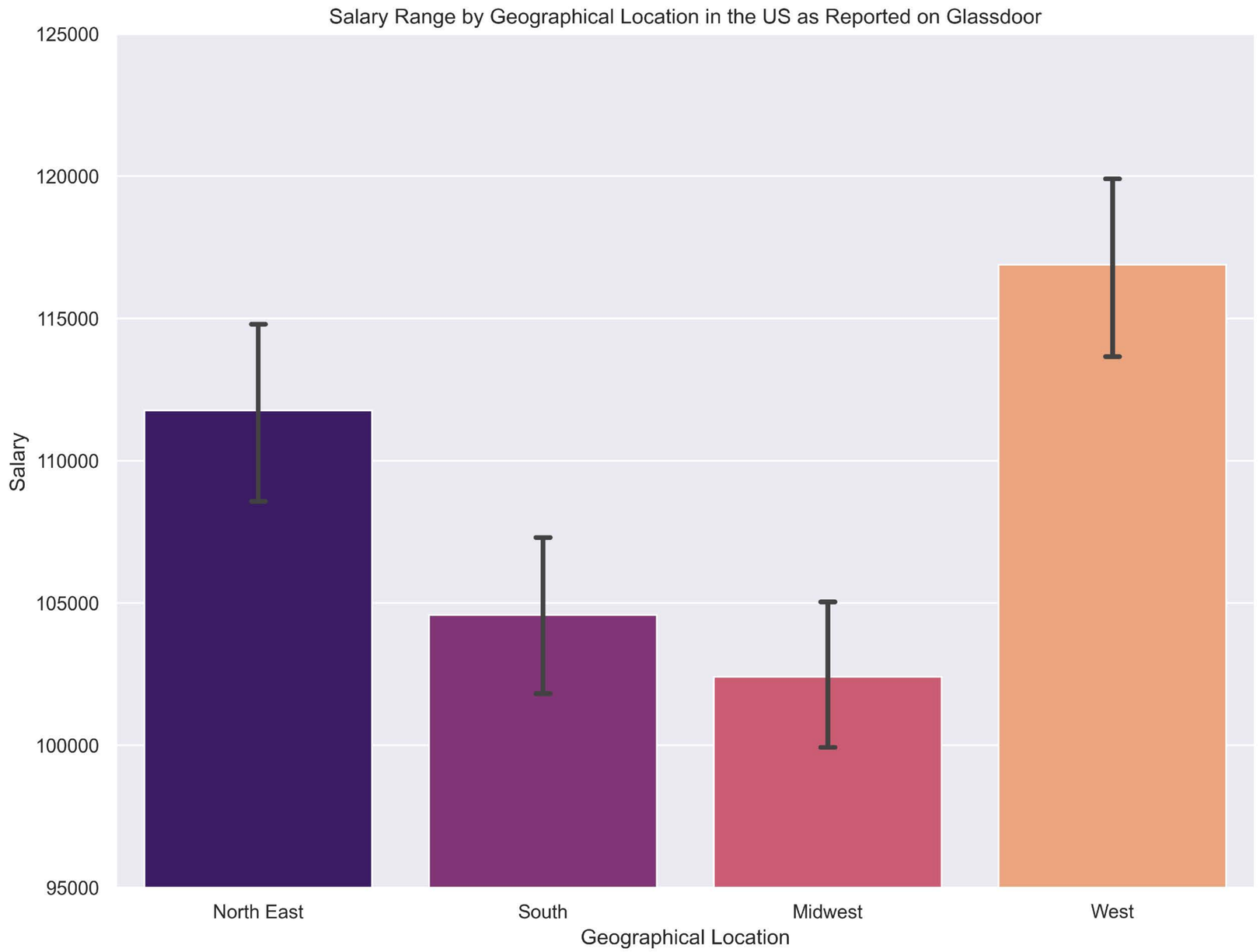

Interaction: Technology

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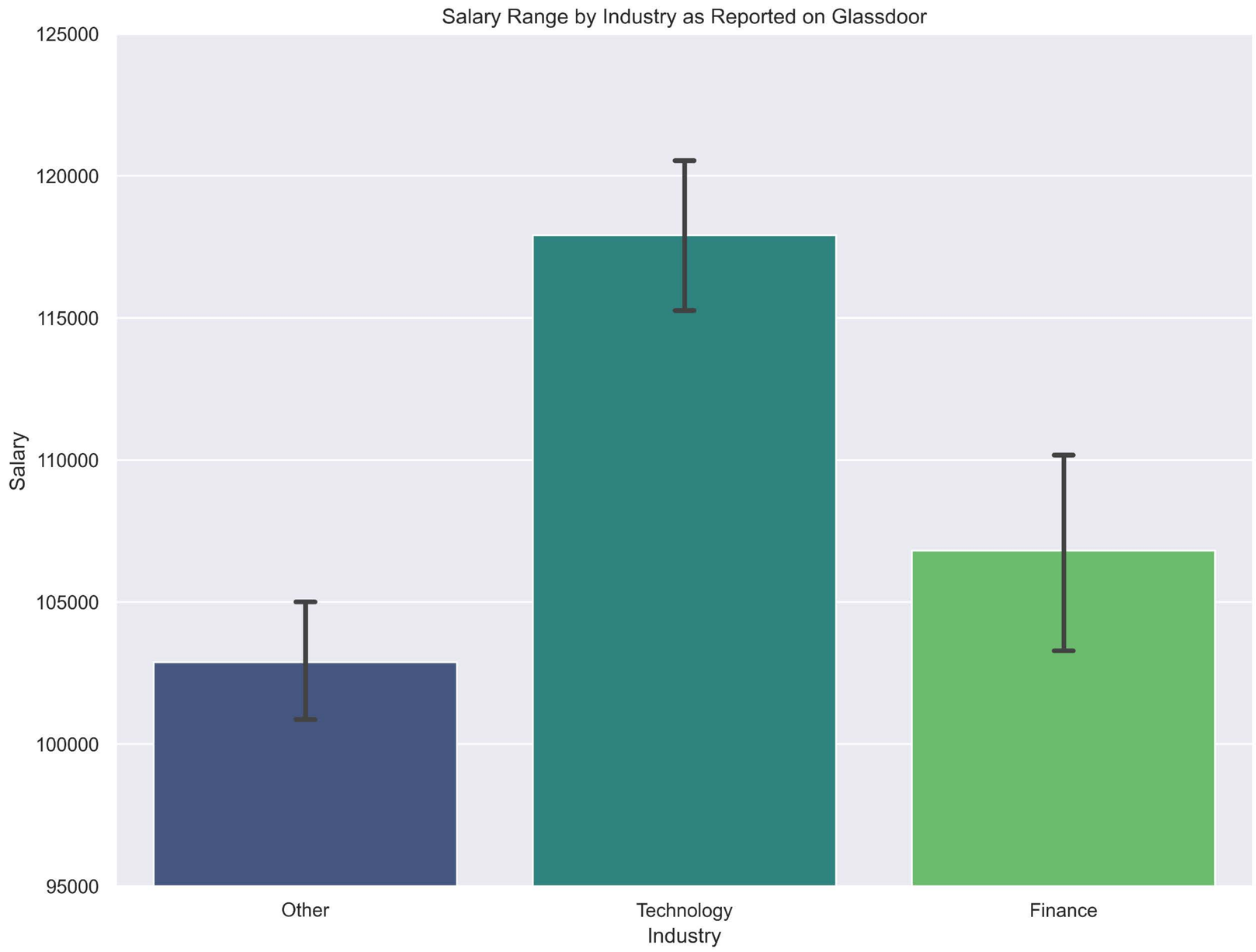

Next Steps

- Interesting Findings:
  - Cost of Living Coefficient varied by data set
  - (Train: -28.14, Val: 368.99, Test: -75.92)
- Consider Headquarter of Company in conjunction with City of Job Posting
- Take into account Seniority level
- Language associated with Job Description
    - “Machine Learning” vs “Analyst”

Questions