As high school statistics students, we naturally wonder — how do these skills translate to real-world salaries? By examining industry variation in data science, we gain practical insights on financially rewarding career paths. This analysis also reveals trends in demand, allowing us to align our quantitative strengths with industries facing talent shortages.

### Highest Earning Positions
Jobs with "Architect", "Engineer" or "Scientist" in the title typically have higher salaries. Ex: Machine Learning Engineer and Data Scientist.

### Why They Pay More
- **Specialization** - Higher salaries linked to niche skills like machine learning and data engineering. These reflect in-demand capabilities.
- **Strategic Value** - Higher pay for roles central to leveraging data and analytics for business objectives.

### Correlation Matrix Heatmap for Salaries Predictor
The Correlation Matrix Heatmap visualizes the relationships between our factors. The single-color gradient reveals that industry ($r=0.331$) and experience level ($r=0.287$) have the strongest positive correlations with salary, followed by location ($r=0.179$). Interestingly, the insignificant correlation between salary and company size ($r=-0.020$) indicates that larger companies do not necessarily offer higher salaries in the data science field.

### Regional Salary Difference
The data reveals significant disparities in data scientist average salaries across countries:
- **Most competitive salaries:** Canada, the UK, and the US
- **Least competitive salaries:** Estonia, Spain, and Latvia

These differences may be attributed to factors such as local economies, demand for data science skills, and the cost of living. However, the limited dataset does not provide a comprehensive view of the global data science job market, emphasizing the need for more extensive data to fully understand worldwide compensation trends in the field.

### Salary Distribution by Experience Level
The boxes capture the middle 50% of salaries at each level, revealing wide ranges even within experience brackets. Outliers earning well beyond the norm demonstrate high potential. The sloping median line presents average salary growth of about $36,100 per step up the experience ladder. So while variability exists, an upward compensation trajectory emerges from entry level to executive. This suggests long-term financial gains as you accumulate knowledge in the data science field.