**Internship Report: NULLCLASS Experience**

**Introduction**During my internship at NULLCLASS, I completed various data visualization and web development tasks aimed at analyzing job-related trends across diverse sectors. The core objective was to leverage my analytical skills and technical knowledge to draw insights from employment data, focusing on aspects like job roles, locations, and company sizes. This independent, self-paced internship enabled me to sharpen my skills in data handling, chart creation, and responsive website design using tools like Tableau and web-hosting platforms.

**Background**My background in GIS, disaster management, and climate sustainability provided a foundation for this internship, which aligned well with my professional aspirations. My role focused on employment data analysis and visualization, building on prior experience in data analytics and visualization techniques. This position enabled me to delve into practical applications of GIS and data analytics, strengthening my ability to interpret and represent large datasets.

**Learning Objectives**Key objectives guiding my internship included:

1. Technical Proficiency: Building expertise in data visualization through Tableau and applying GIS knowledge to real-world datasets.
2. Analytical Skills: Enhancing my capacity to analyze and filter complex data, aiming to reveal trends in job roles and demographics.
3. Web Design Competency: Integrating visualizations into a responsive web framework accessible across multiple devices.
4. Independent Problem-Solving: Developing confidence in self-directed research and troubleshooting.

These goals drove my efforts to enhance both my technical skills and critical thinking abilities.

**Activities and Tasks**Throughout the internship, I focused on visualizing job-related data and web integration:

1. **Chart Showing Relationship Between Country, Job Title, and Role**  
   Created a chart visualizing the relationship between job titles, roles, and countries.
2. **Top 10 Companies for Data Engineers**  
   Developed a chart showing the top 10 companies with the role of Data Engineer and the job title of Data Scientist, applying specific filters such as country, gender, qualifications, and job posting dates.
3. **Top 5 Roles in 2023 for Interns**  
   Designed a chart focusing on Account Director roles for companies with fewer than 2M employees, filtering for intern positions in 2023.
4. **Company Size vs. Mechanical Engineer Role**  
   Created a visualization comparing company size and mechanical engineer roles, applying filters for company size, experience, salary, and job portal.
5. **Comparison of Job Roles in India and Germany**  
   Built a chart comparing job roles in India and Germany, filtering by qualifications, work type, salary range, and job posting dates, with a gender preference for females.

**Skills and Competencies Developed**This internship helped me develop several key skills:

* Data Analysis and Visualization: I honed my ability to analyze large datasets and apply complex filtering, especially when working with job-related criteria. Tableau proved invaluable for representing filtered data in intuitive visual formats.
* Web Development: I gained practical experience in integrating data visualizations into a responsive website, ensuring accessibility across devices.
* Resourcefulness and Adaptability: By navigating challenges independently, I enhanced my problem-solving abilities and adaptability, vital for professional roles that require resilience.
* Time Management and Organization: Daily reporting strengthened my organizational and time-management skills, allowing me to effectively manage my tasks within the internship’s time frame.

**Challenges and Solutions**During the internship, I encountered significant challenges, particularly with dataset modifications and responsive web design:

1. Dataset Limitations: My primary dataset was the Kaggle *Job Description Dataset*, which formed the basis for several tasks. However, specific requirements for tasks 3 and 5 were not met by the available data. After attempting various filtering methods, I used Python’s NumPy and Pandas libraries to create supplemental CSV files, providing the necessary data for comprehensive outputs. This solution enabled me to achieve accurate results, enhancing the final visualizations.
2. Responsive Web Design: Ensuring that my Tableau visualizations worked seamlessly across devices required learning and implementing responsive design principles. Hosting on Netlify/ was instrumental in testing and refining the website's adaptability.

**Outcomes and Impact**The internship resulted in several valuable outcomes:

* Detailed Dashboard Creation: Using both the Kaggle dataset and Python-generated supplemental data, I developed an in-depth Tableau dashboard that mapped job roles, company sizes, and demographic trends.
* Technical Skill Development: Overcoming dataset limitations and coding challenges allowed me to refine my skills in data filtering, visualization, and Python programming.
* Web Integration Proficiency: Successfully embedding visualizations in a responsive site broadened the accessibility of my analyses, underscoring my growing web design capabilities.
* Growth in Data Analysis and GIS: This role furthered my expertise in GIS and data analysis, demonstrating the real-world application of data visualization in employment data trends.

**Conclusion**My experience at NULLCLASS was transformative, enhancing my technical skills in data visualization and web development. Working independently bolstered my confidence in handling complex tasks, from data structuring to responsive design. The experience has equipped me with a stronger foundation in GIS and data analytics, reinforcing my commitment to a career centered around data-driven solutions for understanding social and environmental trends.