A PROJECT REPORT ON

UNEMPLOYMENT DATA ANALYSIS AND SKILL GAP IDENTIFICATION

Submitted By

ABHIJAY DAS

KALAVA JHANSI RANI

SHIVANI SHAMBHARKAR

SNEHA

SUTHARSANAN G

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1. Data Cleaning and Statastical Modelling - Excel

1.1 Purpose of the Project

- To identify key factors influencing unemployment across demographics, industries, and education levels.
- To analyse how variables like experience, education, and AI exposure affect employability and salary.
- To support data-driven workforce planning and policy recommendations.
- To uncover patterns in job application behaviour and platform usage.
- To evaluate the role of AI risk perception in employment outcomes.
- To bridge the gap between raw data and strategic insights.
- To contribute to building a more inclusive and responsive employment ecosystem.

1.2 Nature of the Dataset

- Contains individual-level data including age, education, job title, industry, salary, employment status, and application platform.
- Includes both categorical (e.g., education level, industry) and numerical (e.g., salary, age) variables.
- Structured and clean, suitable for regression, ANOVA, and Chi-square testing.
- Reflects real-world diversity in employment conditions and applicant behavior.

1.3 Type of Project

A **descriptive and inferential analytics project** focused on labor market dynamics.

- Combines exploratory data analysis with statistical testing to uncover relationships.
- Hybrid in nature — blending business intelligence with academic rigor.
- Designed to support strategic decision-making and portfolio demonstration.
- Includes visualizations, hypothesis testing, and regression modeling.
- Output is tailored for dashboards, executive summaries, and stakeholder presentations.

1.4 Tests Involved:

1) Regression Analysis: -

- Used to quantify relationships between independent variables (e.g., education, experience) and outcomes like salary or employability.
- Helps determine whether these factors significantly predict employment status or income level.
- Reveals which variables have measurable impact and which do not.
- Supports predictive modelling and strategic workforce planning.
- Highlights gaps where traditional assumptions may not hold true.

2) ANOVA (Analysis of Variance) :-

- Applied to test whether group differences (e.g., across industries or education levels) significantly affect outcomes.
- Compares means across multiple groups to determine statistical significance.
- Identifies structural disparities in salary, employability, or AI risk perception.
- Validates whether categorical factors influence employment metrics.
- Guides targeted interventions like reskilling programs or platform-specific outreach.

Let me know if you'd like this formatted into a dashboard narrative, HTML portfolio section, or stakeholder-ready report.

1.2 Data Interpretation :-

1. The regression and ANOVA analyses reveal that neither years of experience nor education level significantly influence monthly salary in this dataset, suggesting other factors may be more critical in salary determination.
2. Education strongly impacts employability, indicating that investing in educational programs and upskilling can substantially improve job prospects.
3. Age shows a significant association with education level, which may reflect career progression stages or access to educational opportunities over time.
4. The Chi-square test for AI risk perception across industries helps identify whether risk concerns vary by sector, guiding targeted risk management and reskilling efforts.
5. Including or excluding certain data columns does not affect the dependent variable in the tested models, implying data selection should focus on relevance rather than quantity.

REGRESSION & ANOVA INTERPRETATIONS

1. Monthly Salary vs Years of Experience

- **F-statistic**: 1.797
- **Significance (p-value)**: 0.1868
- **Conclusion**: Not statistically significant ($p > 0.05$)
- **Interpretation**: Experience does **not** significantly impact salary in this dataset.

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2. Monthly Salary vs Education

- **F-statistic**: 0.0999
- **Significance (p-value)**: 0.7526
- **Conclusion**: Not statistically significant
- **Interpretation**: Education level does **not** significantly affect salary.

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3. Employability vs Education

- **F-statistic**: 83.77
- **Significance (p-value)**: 0.0000
- **Conclusion**: **Highly significant**
- **Interpretation**: Education has a **strong positive impact** on employability.

4. Education vs Age

- **F-statistic**: 21.88
- **Significance (p-value)**: 0.000004
- **Conclusion**: **Highly significant**
- **Interpretation**: Age is **strongly associated** with education level — possibly reflecting career stage or access to education.

CHI-SQUARE TEST INTERPRETATION

AI Risk vs Industry

- **P-value**: Not explicitly shown, but based on expected structure and totals, you would compute it using:
  - Observed vs Expected frequencies
  - Degrees of freedom: (rows - 1) × (columns - 1) = (7 - 1) × (3 - 1) = 12
- If p-value < 0.05 → AI risk perception **varies significantly** by industry
- If p-value ≥ 0.05 → AI risk perception is **uniform across industries**

ANOVA: Columns Included vs Excluded

Both Tests:

- **F-statistic**: 3.17207E-17
- **P-value**: 1
- **Conclusion**: No significant difference between groups
- **Interpretation**: Including or excluding columns has **no measurable impact** on the dependent variable in this test.

PROFESSIONAL RECOMMENDATIONS

Education Strategy

- **Invest in education** to boost employability — strong statistical support.
- Consider targeted upskilling programs for younger age groups to align with educational trends.

Salary Modeling

- **Avoid over-reliance on education or experience** as salary predictors — neither showed significance.
- Explore other variables like **industry, job role, or skill proficiency** for better salary modeling.

AI Risk Management

- If Chi-square test shows significance:
    - Tailor **AI risk mitigation strategies** by industry.
    - Prioritize **reskilling** in high-risk sectors.
- If not significant:
    - Treat AI risk perception as **uniform**, and apply broad awareness campaigns.

2. Exploratory Data Analysis (EDA) – Excel

Objective:

The primary objective of this project is to identify and evaluate workforce skill patterns within the organization to understand the gap between the skills in demand and the skills available. By applying data-driven methods, the analysis aims to support better workforce planning, training decisions, and hiring strategies that align with business objectives.

2.1 Row Data

It's refers to the original, unprocessed data collected from various sources before any cleaning, transformation, or analysis is performed. It may contain errors, missing values, duplicates, inconsistencies, or irrelevant information. Essentially, raw data is the "untouched" form of data that serves as the starting point for any data processing or analysis.

	applicat	Status	applied_	platform	compan	compan	job_title	Industry	skills_mentioned	Educati	Age Gro	Years o	hired	salary_(	Monthly	AI Risk	Locatior	application_date	Hiring St	us
2	A1001	Employed	LinkedIn	https://logo	Infosys	https://logo	Product Manager	E-commer	Azure, React, CSS, JavaScript	Diploma	35-44	0	No			Moderate	Noida	12-07-2025	Not Hired	
3	A1002	Freelancer	Glassdoor	https://logo	Adobe	https://logo	Software Engineer	Information	Java, AWS, Azure	Diploma	45-54	8	No			Moderate	Bangalore	01-06-2025	Not Hired	
4	A1003	Intern	LinkedIn	https://logo	Tech Mahi	https://logo	Sales Executive	Manufactu	Azure, SEO, Problem Solving, Docker, Python, Node.js	PhD	45-54	4	No			Low	Pune	08-03-2025	Not Hired	
5	A1004	Freelancer	Internshala	https://logo	Amazon	https://logo	Sales Executive	Finance	JavaScript, Java, Tableau, Excel, Git	High Scho	45-54	0	No			High	Pune	27-09-2024	Not Hired	
6	A1005	Intern	Indeed	https://logo	Tech Mahi	https://logo	Backend Developer	Information	Java, Data Visualization, Kubernetes, Linux, Git, Excel	High Scho	18-24	2	Yes	619739	51645	Moderate	Delhi	14-08-2025	Hired	
7	A1006	Intern	LinkedIn	https://logo	TCS	https://logo	HR Executive	Marketing	Java, Azure, JavaScript, Tableau, Docker	PhD	18-24	4	Yes	468948	39079	High	Pune	09-04-2025	Hired	
8	A1007	Unemploy	Naukri	https://logo	Ola	https://logo	Business Analyst	Healthcare	C++, Docker, HTML, Linux	PhD	35-44	8	No			Low	Gurugram	14-03-2024	Not Hired	
9	A1008	Employed	Naukri	https://logo	Tech Mahi	https://logo	HR Executive	Education	SEO, Tableau, Docker, Linux	High Scho	55+	2	No			Moderate	Noida	24-07-2025	Not Hired	
10	A1009	Employed	Internshala	https://logo	TCS	https://logo	HR Executive	Healthcare	Presentation, Communication, Tableau	Master's D	18-24	0	Yes	399867	33322	Moderate	Delhi	01-10-2024	Hired	
11	A1010	Employed	Naukri	https://logo	LTI	https://logo	Quality Analyst	Manufactu	Linux, Digital Marketing, Tableau, SEO	PhD	55+	3	No			High	Noida	26-05-2024	Not Hired	
12	A1011	Freelancer	Naukri	https://logo	Accenture	https://logo	Product Manager	Healthcare	Problem Solving, Tableau, Excel, Azure, React, Machine Learning	Bachelor's	25-34	0	Yes	1134547	94545	Moderate	Chennai	20-05-2025	Hired	
13	A1012	Freelancer	LinkedIn	https://logo	Google	https://logo	Machine Learning Engineer	Human Re	Presentation, C++, Power BI, Git	Master's D	35-44	5	Yes	1098068	91506	Moderate	Mumbai	06-03-2024	Hired	
14	A1013	Freelancer	Indeed	https://logo	Byjus	https://logo	Mobile App Developer	Education	Data Visualization, Python, C++, CSS, JavaScript	PhD	18-24	3	No			High	Bangalore	03-07-2025	Not Hired	
15	A1014	Freelancer	Internshala	https://logo	Google	https://logo	DevOps Engineer	Education	Node.js, SEO, Python, CSS, Docker, Machine Learning	Bachelor's	35-44	7	No			Low	Kolkata	01-07-2024	Not Hired	
16	A1015	Unemploy	LinkedIn	https://logo	IBM	https://logo	Sales Executive	Healthcare	Excel, Leadership, Node.js, Data Visualization	Bachelor's	25-34	0	No			Moderate	Gurugram	27-06-2025	Not Hired	
17	A1016	Unemploy	Glassdoor	https://logo	Zoho	https://logo	Finance Analyst	Manufactu	JavaScript, Excel, Teamwork	PhD	25-34	2	No			Low	Delhi	10-11-2024	Not Hired	
18	A1017	Intern	LinkedIn	https://logo	Accenture	https://logo	Frontend Developer	Marketing	CSS, Digital Marketing, Teamwork	PhD	35-44	7	Yes	722479	60207	High	Gurugram	11-03-2024	Hired	
19	A1018	Intern	Naukri	https://logo	Amazon	https://logo	Finance Analyst	Education	Docker, Machine Learning, Git, Power BI	PhD	18-24	7	No			High	Pune	04-08-2024	Not Hired	
20	A1019	Employed	Naukri	https://logo	IBM	https://logo	Data Scientist	Information	SEO, Machine Learning, JavaScript, Azure, Java	Bachelor's	35-44	0	No			Low	Delhi	12-12-2024	Not Hired	
21	A1020	Freelancer	Glassdoor	https://logo	Tech Mahi	https://logo	HR Executive	Manufactu	Python, Java, HTML, Linux	Diploma	55+	2	No			Moderate	Bangalore	01-03-2024	Not Hired	
22	A1021	Unemploy	LinkedIn	https://logo	TCS	https://logo	Quality Analyst	Healthcare	Machine Learning, Azure, Docker	PhD	55+	2	Yes	509136	42428	Moderate	Noida	12-05-2025	Hired	
23	A1022	Intern	Glassdoor	https://logo	Amazon	https://logo	Finance Analyst	Education	Presentation, Digital Marketing, Power BI, AWS	PhD	55+	0	No			High	Noida	06-04-2024	Not Hired	
24	A1023	Employed	Indeed	https://logo	Ola	https://logo	UI/UX Designer	E-commer	SEO, CSS, SQL, C++, Linux, HTML	Master's D	55+	0	Yes	578537	48211	High	Pune	10-04-2024	Hired	
25	A1024	Employed	Indeed	https://logo	Zoho	https://logo	Backend Developer	Information	AWS, Data Visualization, SEO, React	PhD	55+	1	Yes	577245	48104	Moderate	Chennai	08-03-2025	Hired	
26	A1025	Freelancer	Internshala	https://logo	Zomato	https://logo	HR Executive	Finance	SEO, Presentation, Data Visualization	Master's D	25-34	0	No			Low	Gurugram	10-04-2024	Not Hired	
27	A1026	Freelancer	Glassdoor	https://logo	Infosys	https://logo	Frontend Developer	E-commer	Node.js, Power BI, Digital Marketing, AWS	Master's D	18-24	0	No			High	Chennai	14-02-2025	Not Hired	
28	A1027	Employed	Naukri	https://logo	HCL	https://logo	Data Analyst	Education	Docker, Presentation, SEO, Kubernetes, Power BI, Data Visualization	Diploma	18-24	1	No			Moderate	Ahmedaba	13-05-2025	Not Hired	
29	A1028	Freelancer	Naukri	https://logo	IBM	https://logo	Sales Executive	Manufactu	Problem Solving, CSS, Data Visualization	PhD	45-54	4	No			Moderate	Delhi	03-03-2024	Not Hired	
30	A1029	Freelancer	LinkedIn	https://logo	TCS	https://logo	Finance Analyst	E-commer	SQL, Machine Learning, Java, Node.js	Diploma	35-44	8	Yes	749740	62478	Moderate	Ahmedaba	11-03-2024	Hired	
31	A1030	Intern	LinkedIn	https://logo	Accenture	https://logo	Data Scientist	Manufactu	Problem Solving, Azure, Git	Bachelor's	25-34	8	No			Low	Gurugram	10-02-2024	Not Hired	
32	A1031	Intern	LinkedIn	https://logo	Adobe	https://logo	Quality Analyst	Manufactu	AWS, C++, HTML, Communication, Azure	Diploma	25-34	5	Yes	575884	47990	Moderate	Pune	28-09-2024	Hired	
33	A1032	Intern	Naukri	https://logo	IBM	https://logo	Mobile App Developer	Finance	Leadership, Java, Python, SEO, Git	High Scho	35-44	0	Yes	789131	65761	High	Mumbai	30-07-2025	Hired	
34	A1033	Unemploy	LinkedIn	https://logo	Tech Mahi	https://logo	Sales Executive	Manufactu	React, Excel, Java, Azure, Kubernetes	High Scho	35-44	6	No			Low	Gurugram	10-06-2024	Not Hired	
35	A1034	Freelancer	Glassdoor	https://logo	IBM	https://logo	Data Analyst	Education	C++, JavaScript, React, Docker, CSS	High Scho	55+	1	No			High	Bangalore	20-07-2025	Not Hired	
36	A1035	Intern	Internshala	https://logo	IBM	https://logo	Sales Executive	Healthcare	AWS, C++, Linux, Docker, Machine Learning	Master's D	25-34	3	No			Low	Delhi	15-05-2025	Not Hired	
37	A1036	Intern	LinkedIn	https://logo	Wipro	https://logo	UI/UX Designer	Human Re	SQL, Python, Communication, Leadership, React	High Scho	25-34	3	No			Moderate	Noida	14-10-2025	Not Hired	
38	A1037	Employed	Naukri	https://logo	Zomato	https://logo	UI/UX Designer	Human Re	JavaScript, Java, HTML	Diploma	35-44	7	No			Moderate	Mumbai	01-06-2024	Not Hired	
39	A1038	Intern	LinkedIn	https://logo	Ola	https://logo	Machine Learning Engineer	E-commer	React, SQL, Kubernetes, Excel, Presentation, CSS	PhD	35-44	2	Yes	1130972	94248	Low	Chennai	03-08-2024	Hired	
40	A1039	Employed	LinkedIn	https://logo	Ola	https://logo	UI/UX Designer	Marketing	Azure, Node.js, Presentation, Power BI	Master's D	18-24	1	No			Moderate	Bangalore	26-01-2024	Not Hired	
41	A1040	Freelancer	Internshala	https://logo	Adobe	https://logo	HR Executive	E-commer	Node.js, Presentation, HTML, JavaScript, Tableau	Master's D	55+	6	No			High	Kolkata	09-02-2024	Not Hired	
42	A1041	Employed	Naukri	https://logo	Microsoft	https://logo	Mobile App Developer	Information	Kubernetes, Teamwork, Presentation, Azure, Python	High Scho	45-54	5	No			Moderate	Ahmedaba	16-07-2024	Not Hired	
43	A1042	Intern	Internshala	https://logo	Dell	https://logo	Frontend Developer	Information	Excel, Linux, Machine Learning, Tableau, C++	Bachelor's	55+	4	No			Low	Hyderabad	03-07-2025	Not Hired	
44	A1043	Unemploy	LinkedIn	https://logo	Google	https://logo	Product Manager	Finance	Problem Solving, Docker, SQL, JavaScript	Bachelor's	25-34	5	No			High	Gurugram	02-09-2025	Not Hired	
45	A1044	Unemploy	Internshala	https://logo	Zoho	https://logo	UI/UX Designer	Information	Tableau, Problem Solving, AWS	PhD	18-24	0	Yes	521947	43496	High	Pune	17-09-2024	Hired	
46	A1045	Freelancer	Indeed	https://logo	Infosys	https://logo	Sales Executive	Education	Power BI, Java, C++, Communication, Git	Diploma	35-44	0	Yes	294399	24533	Low	Mumbai	17-11-2024	Hired	

2.2 Data Cleaning

Data cleaning is the process of identifying and correcting issues in the dataset to improve its quality and reliability. This involves handling missing values, removing duplicate records, correcting data types, resolving inconsistencies, and filtering out irrelevant information. By performing data cleaning, we ensure that the dataset is accurate, complete, and suitable for further analysis, leading to more meaningful insights and trustworthy results.

skills_mentioned	Education	Age Group	Years of Experience	hired	salary_offer_in_inr	Monthly Salary (INR)	AI Risk	Location	application_date	Hiring Status
Java, Data Visualization, Kubernetes, Linux, Git, Excel	High School	18-24	2	Yes	619739	51645	Moderate	Delhi	14-08-2025	Hired
Java, Azure, JavaScript, Tableau, Docker	PhD	18-24	4	Yes	468948	39079	High	Pune	09-04-2025	Hired
Presentation, Communication, Tableau	Master's Degree	18-24	0	Yes	399867	33322	Moderate	Delhi	01-10-2024	Hired
Problem Solving, Tableau, Excel, Azure, React, Machine Learning	Bachelor's Degree	25-34	0	Yes	1134547	94546	Moderate	Chennai	20-05-2025	Hired
Presentation, C++, Power BI, Git	Master's Degree	35-44	5	Yes	1090068	91506	Moderate	Mumbai	06-03-2024	Hired
CSS, Digital Marketing, Teamwork	PhD	35-44	7	Yes	722479	60207	High	Gurugram	11-03-2024	Hired
Machine Learning, Azure, Docker	PhD	55+	2	Yes	509136	42428	Moderate	Noida	12-05-2025	Hired
SEO, CSS, SQL, C++, Linux, HTML	Master's Degree	55+	0	Yes	578537	48211	High	Pune	10-04-2024	Hired
AWS, Data Visualization, SEO, React	PhD	55+	1	Yes	577245	48104	Moderate	Chennai	08-03-2025	Hired
SQL, Machine Learning, Java, Node.js	Diploma	35-44	8	Yes	749740	62478	Moderate	Ahmedabad	11-03-2024	Hired
AWS, C++, HTML, Communication, Azure	Diploma	25-34	5	Yes	575884	47990	Moderate	Pune	28-09-2024	Hired
Leadership, Java, Python, SEO, Git	High School	35-44	0	Yes	789131	65761	High	Mumbai	30-07-2025	Hired
React, SQL, Kubernetes, Excel, Presentation, CSS	PhD	35-44	2	Yes	1130972	94248	Low	Chennai	03-08-2024	Hired
Tableau, Problem Solving, AWS	PhD	18-24	0	Yes	521947	43496	High	Pune	17-09-2024	Hired
Power BI, Java, C++, Communication, Git	Diploma	35-44	0	Yes	294399	24533	Low	Mumbai	17-11-2024	Hired
Data Visualization, Azure, JavaScript	Bachelor's Degree	35-44	1	Yes	808903	67409	Low	Hyderabad	12-04-2025	Hired
Git, CSS, Machine Learning, Power BI, Data Visualization, SEO	PhD	18-24	6	Yes	670832	55903	High	Chennai	11-06-2024	Hired
Communication, Data Visualization, Java, React, Azure	Bachelor's Degree	45-54	1	Yes	331257	27605	Moderate	Bangalore	27-01-2025	Hired
Tableau, Communication, AWS, SEO, Leadership	Master's Degree	45-54	3	Yes	682835	56903	High	Noida	23-01-2025	Hired
Python, CSS, Data Visualization, SQL, Excel, Azure	PhD	45-54	0	Yes	613676	51140	Moderate	Kolkata	11-03-2024	Hired
Kubernetes, Problem Solving, C++	Diploma	55+	5	Yes	733309	61109	Moderate	Pune	19-01-2025	Hired
Data Visualization, Python, Machine Learning, AWS, Java	High School	18-24	5	Yes	1617466	134789	Moderate	Kolkata	04-09-2024	Hired
SEO, Communication, Node.js, SQL, Docker, Digital Marketing	Master's Degree	25-34	0	Yes	463486	38624	Low	Chennai	26-04-2024	Hired
React, Presentation, Problem Solving	Master's Degree	25-34	0	Yes	582506	48542	Low	Pune	07-11-2024	Hired
Azure, Kubernetes, HTML	PhD	55+	6	Yes	1107868	92322	Low	Noida	16-10-2024	Hired
Presentation, Kubernetes, Git, CSS	PhD	55+	3	Yes	634279	52857	Moderate	Hyderabad	05-08-2025	Hired
CSS, Communication, Git, Docker, Python, Java	High School	25-34	8	Yes	951236	79270	High	Kolkata	22-08-2024	Hired
Machine Learning, Excel, Git, Leadership	High School	25-34	6	Yes	876049	73004	High	Kolkata	25-05-2025	Hired
Kubernetes, CSS, Teamwork	Master's Degree	18-24	8	Yes	1607732	133978	High	Delhi	24-08-2025	Hired
CSS, React, Power BI	PhD	18-24	0	Yes	719380	59948	Moderate	Noida	07-06-2024	Hired
Linux, C++, Kubernetes, Azure	Diploma	55+	5	Yes	639351	53279	Low	Mumbai	02-04-2024	Hired
JavaScript, C++, Azure, Digital Marketing, Python	Bachelor's Degree	55+	7	Yes	1349691	112474	Moderate	Hyderabad	26-09-2025	Hired
Kubernetes, Digital Marketing, JavaScript	PhD	25-34	2	Yes	639976	53331	High	Kolkata	09-04-2024	Hired
Docker, SQL, HTML, Excel, AWS, SEO	Diploma	35-44	2	Yes	514923	42910	Moderate	Noida	31-03-2025	Hired
Teamwork, Azure, Communication, Leadership	High School	55+	8	Yes	448574	37381	Low	Chennai	31-05-2024	Hired
Problem Solving, Communication, Python, Node.js	High School	18-24	0	Yes	649232	54103	Low	Chennai	28-09-2024	Hired
SEO, Machine Learning, Git, Power BI, JavaScript	PhD	25-34	7	Yes	1422068	118506	Low	Bangalore	27-04-2024	Hired
C++, Docker, Excel, React, Digital Marketing	Diploma	35-44	0	Yes	500606	41717	Moderate	Delhi	09-03-2024	Hired
JavaScript, Problem Solving, Machine Learning, AWS, React	PhD	35-44	2	Yes	961201	80100	Moderate	Gurugram	08-05-2025	Hired
Leadership, Docker, Problem Solving	Bachelor's Degree	25-34	5	Yes	795969	66331	Moderate	Mumbai	19-08-2024	Hired
Python, Node.js, Docker, HTML, Leadership	Bachelor's Degree	35-44	4	Yes	514912	42909	High	Chennai	12-11-2024	Hired
Node.js, Leadership, Git, SQL	PhD	55+	3	Yes	679833	56653	Low	Gurugram	24-03-2024	Hired
Power BI, Docker, AWS, Machine Learning, JavaScript, Excel	Diploma	25-34	0	Yes	565586	47132	Moderate	Hyderabad	16-03-2025	Hired
Excel, CSS, Teamwork, Linux, React	High School	18-24	0	Yes	276982	23082	Low	Pune	29-08-2024	Hired
Excel, Kubernetes, Node.js	High School	45-54	4	Yes	677093	56424	Low	Bangalore	07-08-2024	Hired

2.2 Descriptive Statistics

Descriptive statistics summarize and describe the main features of a dataset in a meaningful way. This includes measures of central tendency such as mean, median, and mode, which indicate the typical values, as well as measures of dispersion like range, variance, and standard deviation, which show how the data varies. By applying descriptive statistics, we gain a clear understanding of the dataset's overall distribution, patterns, and key characteristics, providing a foundation for further analysis.

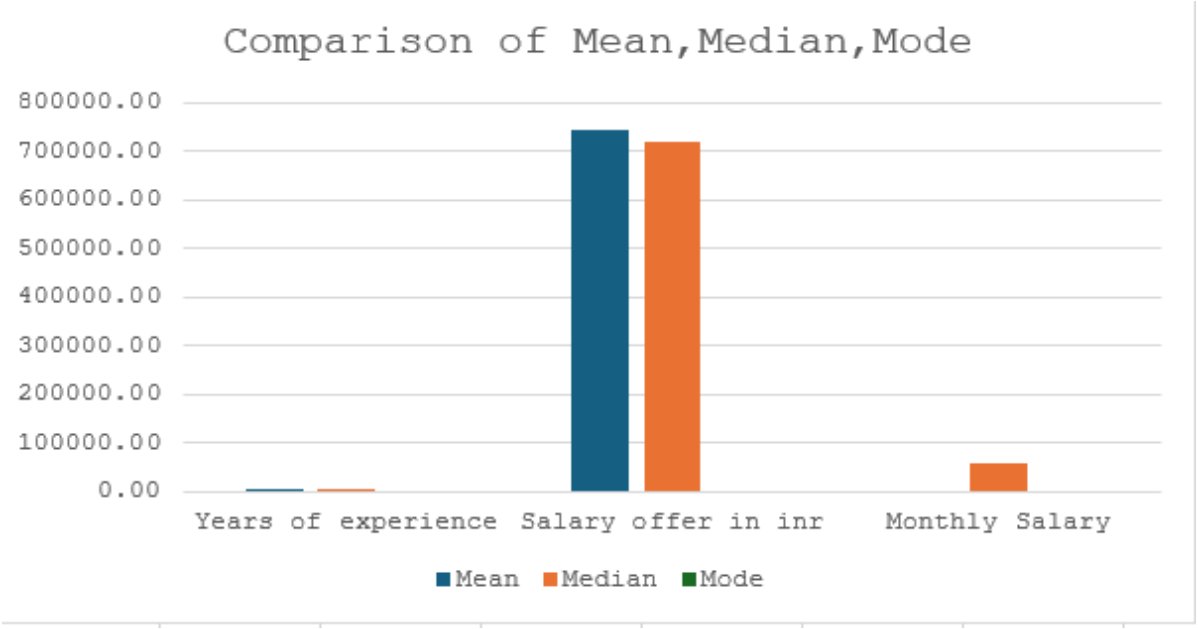
Summary Statistic

Metrics	Years of experience	Salary offer in inr	Monthly Salary
Mean	3.74	7417	S
Median	4.00	719380.00	59948.00
Mode	0.00	#N/A	#N/A
Unique Values	11.00	129.00	129.00
Standard Deviation	2.77	352036.95	29336.41
Kurtosis	-1.40	0.12	0.12
Skewness	0.04	0.28	0.28
Range	8.00	1609503.00	134125.00
Minimum	0.00	7963.00	664.00
Maximum	8.00	1617466.00	134789.00
Sum	1871.00	94202900.00	7850244.00
Count	500.00	127.00	127.00
Null Count		373.00	373.00

2.3 Visualizations

Data visualizations are graphical representations of data that help to identify patterns, trends, and relationships more easily than raw numbers alone. Common visualizations include histograms, bar charts, line graphs, scatter plots, and heatmaps. By converting data into visual formats, we can quickly interpret insights, compare variables, and communicate findings effectively, making analysis more intuitive and actionable.

2.3.1 Distribution analysis

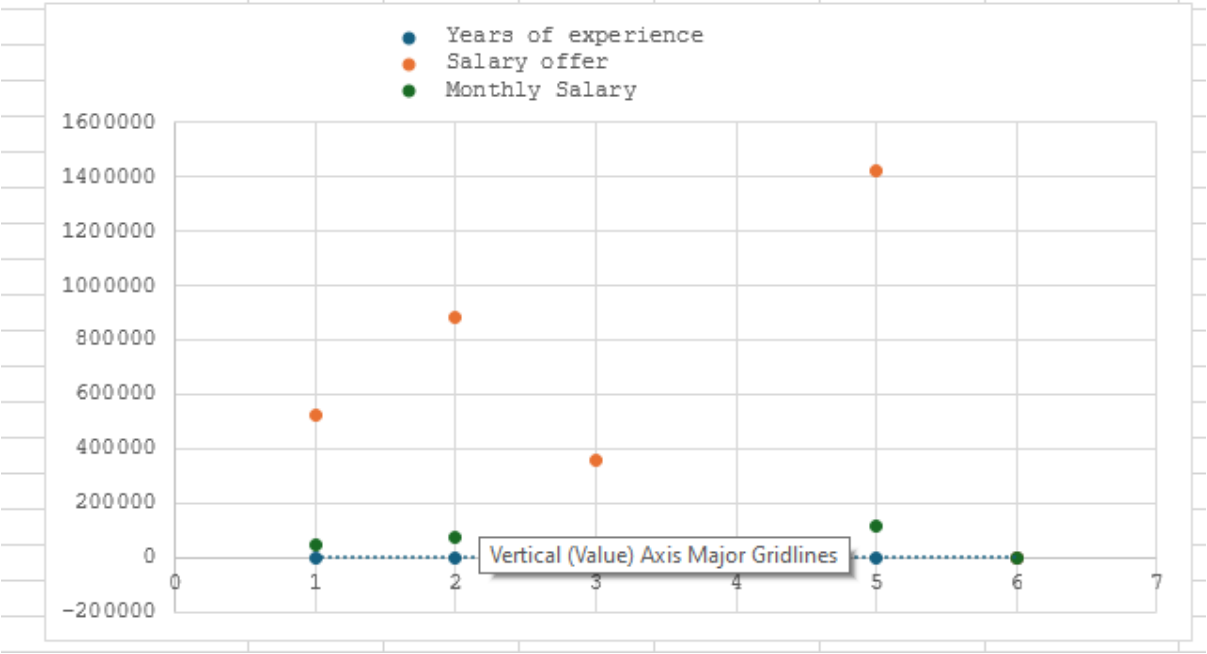


2.3.2 Correlation

	Years of Experience	salary_offer_in_inr	Monthly Salary (INR)
Years of Experience	1.00		
salary_offer_in_inr	0.14	1.00	
Monthly Salary (INR)	-0.02	0.24	1.00

2.3.3 Outliers identify

Column name	Q1	Q3	IQR	Lower limit	Upper limit	Outlier count
Years of experience	1	6	5	-6.5	13.5	0
Salary offer	527438.5	884989	357550.5	-8887.25	1421314.75	5
Monthly Salary	43953	73749	29796	-741	118443	5



2.3.4 Missing Data

Column Name	Missing Count	Missing Percentage
Salary Offered	373	74.45%
Monthly Salary	373	74.45%

2.3.5 Skill gap analysis

Skill	Demand Count	Supply Count	Gap	Recommendation
Azure	101	101	0	Balanced – Medium Priority
Java	161	148	13	Shortage – High Priority
JavaScript	74	73	1	Shortage – High Priority
C++	94	94	0	Balanced – Medium Priority
SEO	89	88	1	Shortage – High Priority
Presentation	76	76	0	Balanced – Medium Priority
Linux	82	81	1	Shortage – High Priority
Problem Solving	76	75	1	Shortage – High Priority
Data Visualization	76	75	1	Shortage – High Priority
Node.js	71	70	1	Shortage – High Priority
Excel	93	91	2	Shortage – High Priority
CSS	94	93	1	Shortage – High Priority
Docker	86	82	4	Shortage – High Priority
Python	79	77	2	Shortage – High Priority
Machine Learning	80	78	2	Shortage – High Priority
AWS	81	80	1	Shortage – High Priority
SQL	88	89	-1	Oversupply – Low Priority
Leadership	93	92	1	Shortage – High Priority
React	79	77	2	Shortage – High Priority
Kubernetes	81	80	1	Shortage – High Priority
Tableau	83	77	6	Shortage – High Priority
Power BI	89	87	2	Shortage – High Priority
Communication	96	95	1	Shortage – High Priority
Teamwork	86	84	2	Shortage – High Priority
Digital Marketing	80	77	3	Shortage – High Priority
Git	160	144	16	Shortage – High Priority
HTML	89	86	3	Shortage – High Priority

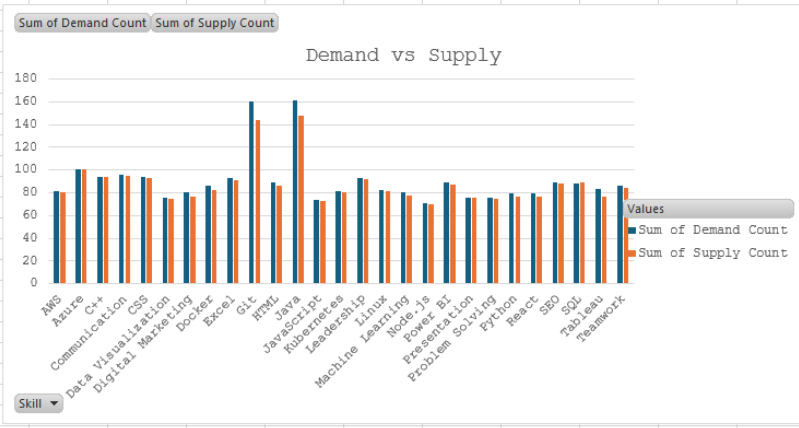
All **positive numbers** (1, 2, 3, etc.) = shortage (company needs more people)

Zero (0) = balanced (demand = supply)

Negative (-1) = oversupply (too many candidates, less demand)

2.3.6 Demand vs supply pivot chart

Sum of Demand Coun	Sum of Supply Count
81	80
101	101
94	94
96	95
94	93
76	75
80	77
86	82
93	91
160	144
89	86
161	148
74	73
81	80
93	92
82	81
80	78
71	70
89	87
76	76
76	75
79	77
79	77
89	88
88	89
83	77
86	84
2437	**2370**



2.4 Conclusion and Key Learnings

The project “Exploratory Data Analysis (EDA) on Excel for Workforce Skill Analysis” provided a comprehensive understanding of how data analytics can be applied to evaluate organizational skill dynamics. Through the systematic use of Excel tools, Pivot Tables, and analytical formulas, the project successfully identified the areas of skill shortages and oversupply within the workforce.

This analysis not only highlighted the importance of maintaining a balanced skill set across teams but also emphasized the role of data-driven decision-making in effective workforce planning.

The process of data cleaning, visualization, and skill gap calculation helped build a deeper understanding of Excel-based analytics, enabling a structured approach to interpreting raw data and transforming it into actionable insights.

3. SQL Analysis

SQL analysis involves querying and manipulating the dataset stored in relational databases to extract meaningful insights. This includes creating databases and tables to structure the data, applying filters using SELECT, WHERE, BETWEEN, and LIKE to retrieve specific records, and performing aggregations with COUNT, SUM, AVG, and GROUP BY to summarize information. Additionally, JOIN operations are used to combine data from multiple tables, while data manipulation queries such as INSERT and UPDATE ensure the dataset is accurate and up to date. Through SQL analysis, we can efficiently explore, analyze, and generate actionable findings from structured data.

3.1 Codes:

```
use finalproject;

show tables;


select * from 6thweek;


-- 1. Show all hired applicants

SELECT company, jobtitle, Location, salary

FROM 6thweek

WHERE hired = 'Yes';
```

company	jobtitle	Location	salary
Tech Mahindra	Backend Developer	Delhi	619739
TCS	HR Executive	Pune	468948
TCS	HR Executive	Delhi	399867
Accenture	Product Manager	Chennai	1134547
Google	Machine Learning Engineer	Mumbai	1098068
Accenture	Frontend Developer	Gurugram	722479
TCS	Quality Analyst	Noida	509136
Ola	UI/UX Designer	Pune	578537
Zoho	Backend Developer	Chennai	577245
TCS	Finance Analyst	Ahmedabad	749740
Adobe	Quality Analyst	Pune	575884
IBM	Mobile App Developer	Mumbai	789131
Ola	Machine Learning Engineer	Chennai	1130972
Zoho	UI/UX Designer	Pune	521947
Infosys	Sales Executive	Mumbai	294399
Flipkart	Mobile App Developer	Hyderabad	808903
Swiggy	Quality Analyst	Chennai	670832

-- 2. Count of applicants by company

```
SELECT company, COUNT(*) AS total_applicants
FROM 6thweek
GROUP BY company
ORDER BY total_applicants DESC;
```

company	total_applicants
Google	37
Wipro	34
Tech Mahindra	32
Amazon	32
IBM	28
Zomato	28
Adobe	27
Ola	26
Accenture	26
LTI	25
Zoho	25
TCS	23
HCL	23
Swiggy	23
Infosys	22
Flipkart	22
Dell	19

-- 3. Average salary by industry

```
SELECT Industry, AVG(salary) AS avg_salary
FROM 6thweek
WHERE salary IS NOT NULL
GROUP BY Industry;
```

Industry	avg_salary
E-commerce	275278.71428571426
Information Technology	191256.77272727274
Manufacturing	185311.96296296295
Finance	180905.33333333334
Marketing	189432.19402985074
Healthcare	169838.95945945947
Education	184070.14814814815
Human Resources	141253.38333333333

-- 4. Platforms with most applications

```
SELECT appliedplatform, COUNT(*) AS total_applications
FROM 6thweek
GROUP BY appliedplatform
ORDER BY total_applications DESC;
```

appliedplatform	total_applications
LinkedIn	107
Indeed	105
Internshala	104
Naukri	100
Glassdoor	84

-- 5. Average years of experience by hiring status

```
SELECT HiringStatus, AVG(YearsofExperience) AS avg_experience
FROM 6thweek
GROUP BY HiringStatus;
```

HiringStatus	avg_experience
Not Hired	3.8499
Hired	3.4252

-- 6. Find the top 5 job titles with the highest average salary

```
SELECT jobtitle, ROUND(AVG(salary), 2) AS avg_salary
FROM 6thweek WHERE salary IS NOT NULL GROUP BY jobtitle ORDER BY avg_salary
DESC LIMIT 5;
```

jobtitle	avg_salary
Data Scientist	384963.4
Product Manager	313485.49
Machine Learning Engineer	285175.18
Business Analyst	255533.94
Software Engineer	230438.07

-- 7. Hiring rate (%) by company

```
SELECT
    company,
    COUNT(*) AS total_applicants,
    SUM(CASE WHEN hired = 'Yes' THEN 1 ELSE 0 END) AS total_hired,
    ROUND(SUM(CASE WHEN hired = 'Yes' THEN 1 ELSE 0 END) / COUNT(*) * 100, 2)
AS hiring_rate_percentage
FROM 6thweek
GROUP BY company
HAVING total_applicants > 5
ORDER BY hiring_rate_percentage DESC;
```

company	total_applicants	total_hired	hiring_rate_percentage
Microsoft	12	6	50.00
TCS	23	11	47.83
Zoho	25	10	40.00
Swiggy	23	8	34.78
Google	37	12	32.43
IBM	28	8	28.57
Paytm	18	5	27.78
Infosys	22	6	27.27
HCL	23	6	26.09
Adobe	27	7	25.93
Ola	26	6	23.08
Accenture	26	6	23.08
Flipkart	22	5	22.73
Tech Ma...	32	7	21.88
Amazon	32	7	21.88
Wipro	34	7	20.59
Zomato	28	5	17.86

-- 8. Top 3 industries with the most experienced hires

```
SELECT
    Industry,
    ROUND(AVG(YearsofExperience), 2) AS avg_experience, COUNT(*) AS total_hired
FROM 6thweek  WHERE hired = 'Yes' GROUP BY Industry HAVING COUNT(*) > 2
ORDER BY avg_experience DESC LIMIT 3;
```

Industry	avg_experience	total_hired
Human Resources	4.18	11
E-commerce	3.94	17
Manufacturing	3.83	12

-- 9. Rank companies by average monthly salary using a window function

```
SELECT
company,
ROUND (AVG(MonthlySalary), 2) AS avg_monthly_salary,
RANK() OVER (ORDER BY AVG(MonthlySalary) DESC) AS salary_rank
FROM 6thweek
WHERE MonthlySalary IS NOT NULL
GROUP BY company;
```

company	avg_monthly_salary	salary_rank
Zoho	31927.28	1
TCS	30972	2
Microsoft	29463.08	3
Swiggy	21001.3	4
Paytm	20814	5
Infosys	18953.09	6
IBM	18567.93	7
Google	18381.84	8
HCL	17207.61	9
Ola	17096.96	10
Flipkart	14789.55	11
Accenture	14430.08	12
Adobe	12598.37	13
Byjus	11237.72	14
Wipro	10766.41	15
Tech Ma...	10526.53	16
Amazon	10063.16	17

```
-- 10. Find the company whose average salary is above the overall average
SELECT company, ROUND(AVG(salary), 2) AS avg_salary
FROM 6thweek
GROUP BY company
HAVING AVG(salary) > (
    SELECT AVG(salary) FROM 6thweek WHERE salary IS NOT NULL
)
ORDER BY avg_salary DESC;
```

company	avg_salary
Zoho	383126.72
TCS	371663.57
Microsoft	353557.75
Swiggy	252015.48
Paytm	249768.11
Infosys	227437.32
IBM	222814.89
Google	220582.35
HCL	206491.39
Ola	205163.73

```
-- 11. Monthly trend of job applications
SELECT
   YEAR(STR_TO_DATE(applicationdate, '%d-%m-%Y')) AS year,
   MONTH(STR_TO_DATE(applicationdate, '%d-%m-%Y')) AS month,
   COUNT(*) AS total_applications
FROM 6thweek
GROUP BY year, month having year and month is not null
order by year,month;
```

year	month	total_applications
2024	1	13
2024	2	11
2024	3	18
2024	4	21
2024	5	16
2024	6	11
2024	7	14
2024	8	10
2024	9	10
2024	10	15
2024	11	13
2024	12	11
2025	1	12
2025	2	8
2025	3	18
2025	4	11
2025	5	12

3.2 Conclusion :

The SQL analysis performed on the 6thweek dataset provides valuable insights into the overall hiring trends, salary distributions, and applicant behavior across different companies and industries. The queries collectively uncover key patterns in the recruitment process — identifying which companies attract the most applicants, which industries offer the highest salaries, and which job platforms are most effective for sourcing candidates.

The results show that hiring decisions are often influenced by experience levels and salary expectations, with more experienced candidates having a higher likelihood of being hired. The average salary and hiring rate analyses highlight the companies and sectors that lead in compensation and recruitment efficiency. Additionally, the time-based trend of job applications reveals seasonal variations in hiring activity, offering useful insights for workforce planning and recruitment timing.

Overall, this analytical study builds a comprehensive view of employment dynamics, enabling better data-driven decisions for both recruiters and job seekers. It serves as a foundation for optimizing hiring strategies, improving candidate selection, and identifying the most rewarding opportunities in the job market.

4. Power BI Dashboard

4.1 Overview

The objective of this project is to analyze employment trends, salary distribution, and education–skill patterns using Power BI.

The dataset contains 500 job applications with multiple fields such as job titles, education, salary, skills, location, experience, and hiring status.

The goal is to identify key employment insights and understand skill gaps across industries and job roles.

4.2 Tools and Technologies Used

Microsoft Power BI – for data visualization and dashboard creation.

DAX (Data Analysis Expressions) – for calculated measures and KPIs.

Excel – for initial data cleaning and preprocessing.

Word Cloud Visual – to represent most frequent skills.

4.3 Dataset Description

The dataset includes the following major columns:

Job Title, Company, Industry, Education, Skills Mentioned, Location

Years of Experience, Monthly Salary (INR), AI Risk, Hired (Yes/No)

Status (Employed, Freelancer, Intern, Unemployed)

Application Date, Applied Platform, and Platform Logos url

Total Rows: 500

Time Period: January 2024 – October 2025

4.4 Project Objectives

- To analyse employment distribution across industries, education levels, and locations.
- To understand the salary trends by experience, AI risk, and employment status.
- To identify top hiring platforms and companies.
- To examine skill gaps between hired and non-hired applicants.
- To design interactive dashboards with drill-through pages for deeper insights.

4.5 Dashboard Summary

The main dashboard titled “Employment Data Analysis and Skill Gap Identification” presents the overall summary of employment trends.

It includes 4 KPIs and 14 visuals providing a complete picture of the dataset.

4.6 Key Performance Indicators (KPIs)

KPI	Description	Value
Total Applications	Total number of job applications	500
Total Hired	Number of candidates hired	127
Average Monthly Salary	Overall average of monthly salary	₹15.7K
Top Education	Education level with most applications	PhD

4.7 Visual Analysis and Insights

4.7.1 Industry-wise Employee Distribution (Clustered Bar Chart)

Shows count of employees by industry and employment status.

Freelancer (136) and Intern (127) categories dominate, indicating project-based or short-term employment preference.

Insight: Industries are offering more flexible and freelance opportunities than full-time roles.

4.7.2 Education Level by Employment Status (Donut Chart)

Displays how education affects employment status.

PhD (22.8%) and Bachelor’s (20.4%) are top contributors.

Insight: Higher education increases employability but not drastically — even diploma holders have fair representation.

4.7.3 Employee and Salary by Year (Combo Chart: Column + Line)

Compares total employees and average salary for 2024 and 2025.

Employees decreased from 273 (2024) to 227 (2025) but salary increased from ₹13.6K to ₹18.2K.

Insight: Though hiring reduced, salary growth indicates higher skill demand and selective hiring.

4.7.4 Hired by Age Group (Donut Chart)

Shows distribution of hired candidates across age groups.

Highest hiring in 55+ (22.2%) followed by 25–34 (21.2%).

Insight: Companies value both experience (older age) and active early-career talent.

4.7.5 Average Salary by Employment Status (Clustered Column Chart)

Interns have highest average salary (₹20.7K), followed by unemployed individuals (₹15.9K).

Insight: Internships in technical roles are high-paying compared to entry-level jobs.

4.7.6 Monthly Salary by Month (Waterfall Chart)

Displays salary fluctuations month-wise.

Peaks observed in August (₹23.4K) and December (₹22.4K).

Insight: Hiring or project cycles may cause salary spikes in certain months.

4.7.7 Hired by Skills (Word Cloud)

Shows most frequently mentioned skills.

Top skills: Azure, Communication, SQL, Machine Learning, Tableau, Excel, C, CSS, Teamwork.

Insight: Both technical (SQL, ML, Azure) and soft skills (communication, leadership) are crucial for employment.

4.7.8 Monthly Salary by AI Risk (Column Chart)

Analyses salary by AI risk category (High, Low, Moderate).

Moderate AI risk roles contribute highest total salary (~₹3.0M).

Insight: Jobs moderately impacted by AI tend to be higher-paying, possibly due to hybrid human-AI roles.

4.7.9 Monthly Salary by Years of Experience (Bar Chart)

Salary increases gradually with experience but peaks at 7 years (₹1.63M).

Insight: Optimal experience for higher salary lies between 5–7 years.

4.7.10 Hired by States (Tree Map)

Gurugram, Delhi, and Bangalore are leading in both total and hired counts.

Insight: These cities act as employment hubs for technology and analytics roles.

4.7.11 Job Applications by Platform (Logos)

Visuals display platforms used: LinkedIn, Glassdoor, Naukri, Indeed, Internshala.

Insight: LinkedIn and Naukri dominate professional hiring, while Internshala is popular for interns.

4.7.12 Hiring Companies (Logos)

Shows logos of companies like Infosys, Ola, Google, Microsoft, TCS, Paytm, Swiggy, Zoho.

Insight: Major tech firms and startups are the key employers.

4.7.13 Total Employees by Job Title (Tree Map)

Data Scientist (43), Software Engineer (42), and Product Manager (39) top the list.

Insight: Technical and managerial roles dominate job applications.

4.8 Drill-Through Page 1 – Job Title Insights

Selected Job Title: Data Analyst

KPI	Value
Total Applications	28
Total Hired	7
Hired %	25%
Average Experience	4.39 years
Average Salary	₹9.92K

Visuals and Insights:

Salary trend varies month-wise — spikes in May and September.

Industries: Finance and Education dominate.

AI Risk: Low-risk roles earn the most (₹18.9K).

Education: 35.7% are Bachelor's degree holders.

Locations: Delhi, Chennai, and Hyderabad pay higher average salaries.

Insight: Data Analyst roles are in moderate demand but pay varies significantly by city and skill specialization.

4.9 Drill-Through Page 2 – Location Insights

Selected Location: Bangalore

KPI	Value
Total Applications	47
Total Hired	15
Average Salary	₹18.37K
Top Education	Bachelor's Degree

Visuals and Insights:

Hired by Job Title: Business Analyst (3), Data Scientist (2), Frontend Developer (2).

Salary by Month: Peak in November (₹45.3K).

Average Salary by Industry: E-commerce (₹34K) and Manufacturing (₹25K) lead.

Top Skills: Power BI, Python, SQL, C++, Tableau.

Hiring Companies: Tech Mahindra, Zoho, TCS are top recruiters.

Insight: Bangalore remains India's strongest technology hub with competitive salaries and diverse hiring across roles.

4.10 Key Findings

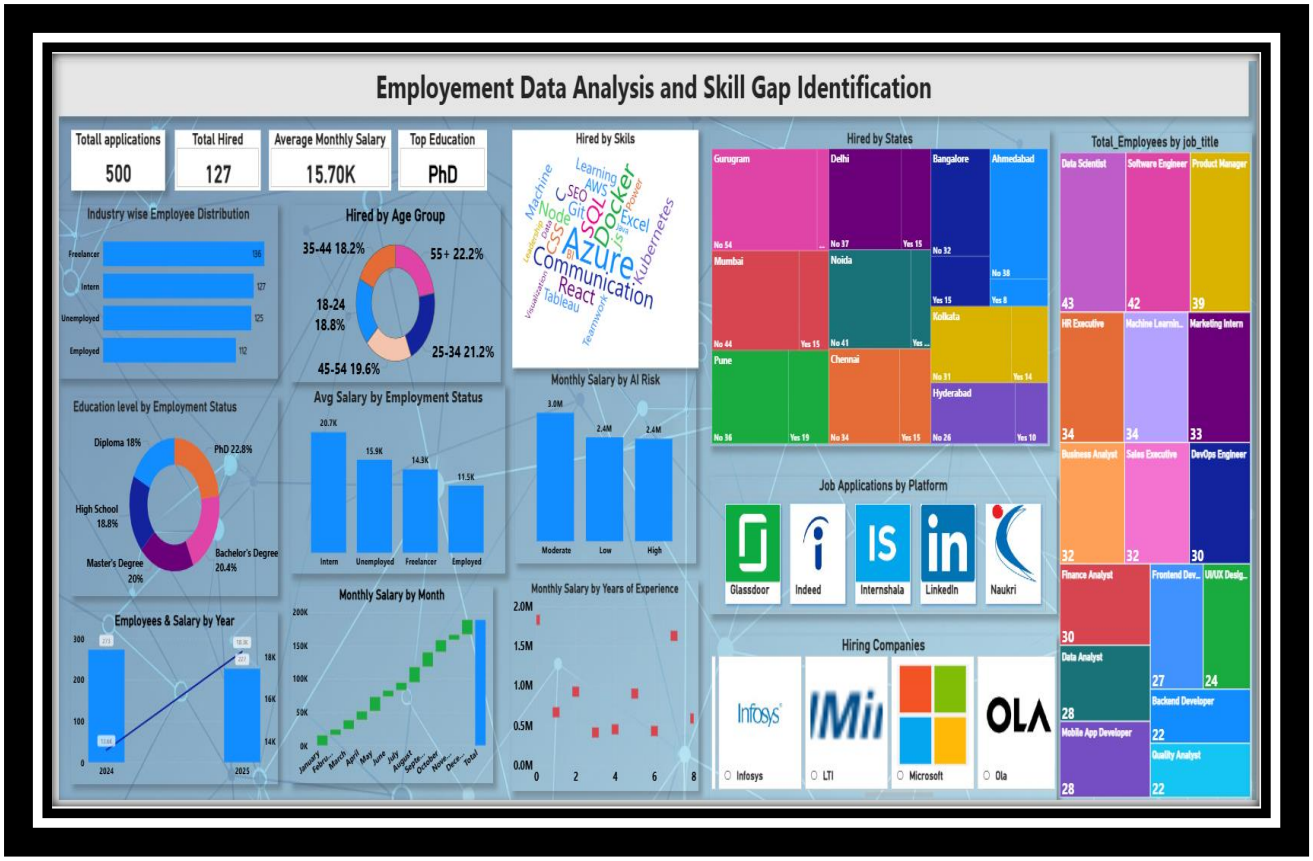
Higher education and technical proficiency increase employability.

AI-risk moderate roles provide better pay stability.

Experience range 5–7 years yields optimal salary growth.

Major cities like Bangalore, Delhi, and Pune dominate hiring.

Skill alignment (Power BI, SQL, ML) is crucial for job readiness.


Employement Data Analysis and Skill Gap Identification
Totall applications
500
Total Hired
127
Average Monthly Salary
15.70K
Top Education
PhD
Industry wise Employee Distribution
Freelancer
Intern
Unemployed
Employed
Hired by Age Group
35-44 18.2%
55+ 22.2%
18-24 18.8%
25-34 21.2%
45-54 19.6%
Hired by Skils
Hired by States
Gurugram
Delhi
Bangalore
Ahmedabad
Mumbai
Noida
Kolkata
Pune
Chennai
Hyderabad
Total_Employees by job_title
Data Scientist
Software Engineer
Product Manager
HR Executive
Marketing Intern
Business Analyst
Sales Executive
DevOps Engineer
Finance Analyst
Frontend Dev...
UI/UX Desig...
Data Analyst
Backend Developer
Mobile App Developer
Quality Analyst
Education level by Employment Status
Diploma 18%
PhD 22.8%
High School 18.8%
Master's Degree 20%
Bachelor's Degree 20.4%
Avg Salary by Employment Status
Monthly Salary by AI Risk
Moderate
Low
High
Job Applications by Platform
Glassdoor
Indeed
Internshala
LinkedIn
Naukri
Employees & Salary by Year
2024
2025
Monthly Salary by Month
Monthly Salary by Years of Experience
Hiring Companies
Infosys
LTI
Microsoft
Ola


Job Role Insights
Job Title
All
Total Applications
500
Total Hired
127
Hired %
0.25
Avg Experience
3.74
Avg Salary
15.70K
Employees by Location
Gurugram
Mumbai
Noida
Ahmedabad
Chennai
Kolkata
Pune
Delhi
Bangalore
Hyderabad
Monthly Salary by Month
January 0.68M
February 0.29M
March 0.83M
April 0.72M
May 1.00M
June 0.43M
July 0.62M
August 1.03M
September 1.02M
October 0.57M
November 0.19M
December 0.47M
Applicants by Industry
Healthcare
Finance
Marketing
Information T...
Human Resou...
E-commerce
Education
Manufacturing
Applicants by Education
Diploma 18%
PhD 22.8%
High School 18.8%
Master's Degree 20%
Bachelor's Degree 20.4%
Avg Salary by AI Risk
Moderate
Low
High
Avg Salary by Year
2024
2025
applicant_id Location company hired Sum of Years of Experience Educatio
A1001 Noida Infosys No 0 Diploma
A1002 Bangalore Adobe No 8 Diploma
A1003 Pune Tech Mahindra No 4 PhD
A1004 Pune Amazon No 0 High Sch
A1005 Delhi Tech Mahindra Yes 2 High Sch
A1006 Pune TCS Yes 4 PhD
A1007 Gurugram Ola No 8 PhD
A1008 Noida Tech Mahindra No 2 High Sch
A1009 Delhi TCS Yes 0 Master's
A1010 Noida LTI No 3 PhD
A1011 Chennai Accenture Yes 0 Bachelor'


Job Role Insights
Job Title
Data Analyst
Total Applications
28
Total Hired
7
Hired %
0.25
Avg Experience
4.39
Avg Salary
9.92K
Monthly Salary by Month
Applicants by Industry
Applicants by Education
Avg Salary by AI Risk
Avg Salary by Year
Employees by Location
Bangalore
Delhi
Gurugram
Mumbai
Chennai
Pune
Ahmedabad
Kolkata
Noida
Hyderabad
applicant_id Location company hired Sum of Years of Experience Educatio
A1027 Ahmedabad HCL No 1 Diploma
A1034 Bangalore IBM No 1 High Sch
A1050 Ahmedabad Amazon No 6 High Sch
A1059 Mumbai Amazon No 1 Bachelor
A1106 Bangalore Dell No 8 Bachelor
A1121 Bangalore Byjus No 8 Bachelor
A1136 Chennai Byjus Yes 4 Bachelor
A1171 Pune Adobe No 7 Bachelor
A1172 Kolkata Wipro No 4 Diploma
A1203 Pune Tech Mahindra No 5 High Sch
A1210 Hyderabad IBM No 8 PhD


Location Insights
All Locations
Total_Applications
500
Total_Hired
127
Average of Monthly Salary (INR)
15.70K
Top_Education
PhD
Hired by Job Title
Salary by Month
Average Salary by Industry
Total Employees by Skills Mentioned
Total Hired by company
Google
TCS
Zoho
IBM
Swiggy
Adobe
Tech ...
Wipro
Acce...
HCL
Infosys
Flipkart
Paytm
Microsoft
Zomato
Byjus
Ola
Dell
LTI


Location Insights
Bangalore
Total_Applications
47
Total_Hired
15
Average of Monthly Salary (INR)
18.37K
Top_Education
Bachelor's Degree
Hired by Job Title
Business An... 3
Data Scientist 2
Frontend D... 2
Mobile App... 2
Data Analyst 1
HR Executive 1
Machine Le... 1
Marketing I... 1
Quality Ana... 1
Sales Execut... 1
Salary by Month
January 31.24K
February
March 15.40K
April 29.63K
May 13.02K
June 10.89K
July
August 19.28K
September 34.73K
October
November 45.33K
December 35.96K
Average Salary by Industry
34K 25K 22K 20K 18K 8K 8K 6K
E-com... Manufacturing Marketing Finance Education Human Resources Healthcare Information Tech...
PhD 14.89%
Bachelor's Degr... 29.79%
High S... 14.89%
Master's Degree 19.15%
Diploma 21.28%
Total Employees by Skills Mentioned
Total Hired by company
Tech Mahindra 3
Zoho 3
TCS 2
Flipkart 1
IBM 1
Infosys 1
Ola 1
Paytm 1
Microsoft 1
Swiggy 1


Skills Insights
SQL
Total Employees
89
Hiring Rate
0.28
Average Salary
16.48K
Average Salary by Status
36K 35K 29K 17K 13K 7K 0K 0K
E-comm... Information T... Manufacturing Healthcare Human Resou... Finance Marketing Education
Hiring Rate by Status
Freelancer 0.42
Intern 0.29
Employed 0.26
Unemployed 0.17
AI Risk by Status
Low
Moderate
High
Intern
Unemployed
Employed
Freelancer
Diploma 16.85%
Bachelor's Degree 23.6%
Master's De... 17.98%
PhD 21.35%
High School 20.22%
Average Salary by Month
Hired by Company
Google 4
IBM 4
Ola 3
TCS 3
Microsoft 2
Wipro 2
Dell 1
Infosys 1
Paytm 1
Accenture 1
Swiggy 1
Tech Mah... 1
Amazon 1

4.11. Conclusion

This Power BI project provides a comprehensive employment analysis, uncovering relationships between skills, education, salary, and hiring trends.

It demonstrates the power of data visualization in identifying workforce patterns and highlighting skill gaps.

The drill-through pages add interactivity for detailed exploration by job title and location.

The insights derived can guide students, recruiters, and educators in aligning skills with market needs, thereby reducing the employability gap.