

Employee Attrition Analysis Report

Overview

This analysis identifies key factors driving employee attrition and offers actionable recommendations to improve retention. A Logistic Regression model was used to predict at-risk employees, achieving good accuracy.

Key Findings

- Attrition Distribution:

The bar chart above shows the number of employees who left vs. those who stayed.

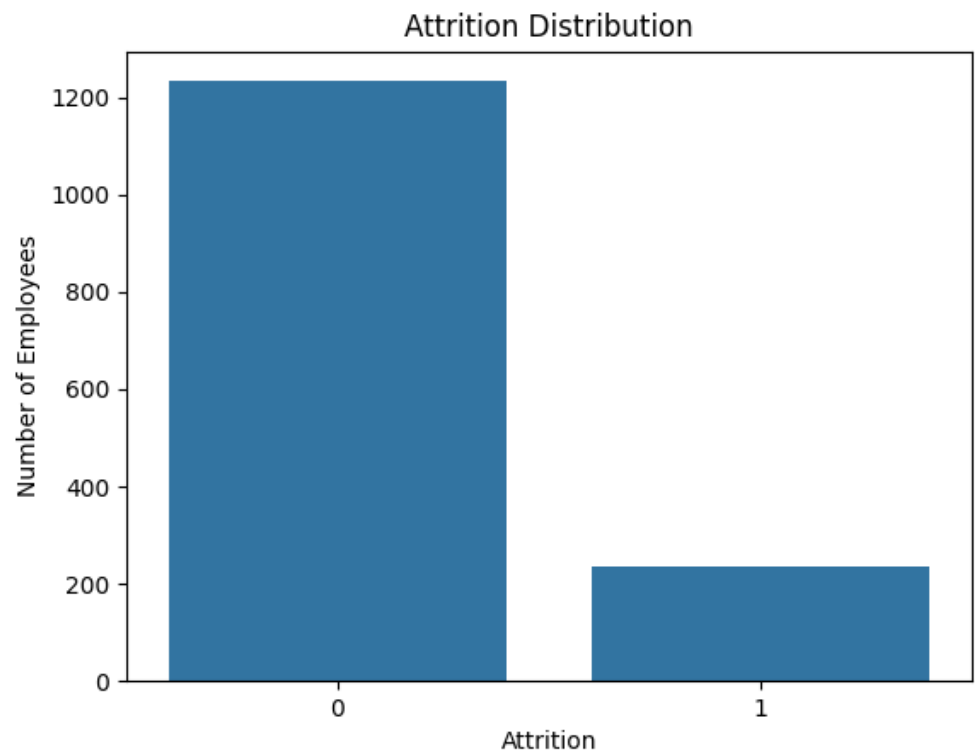
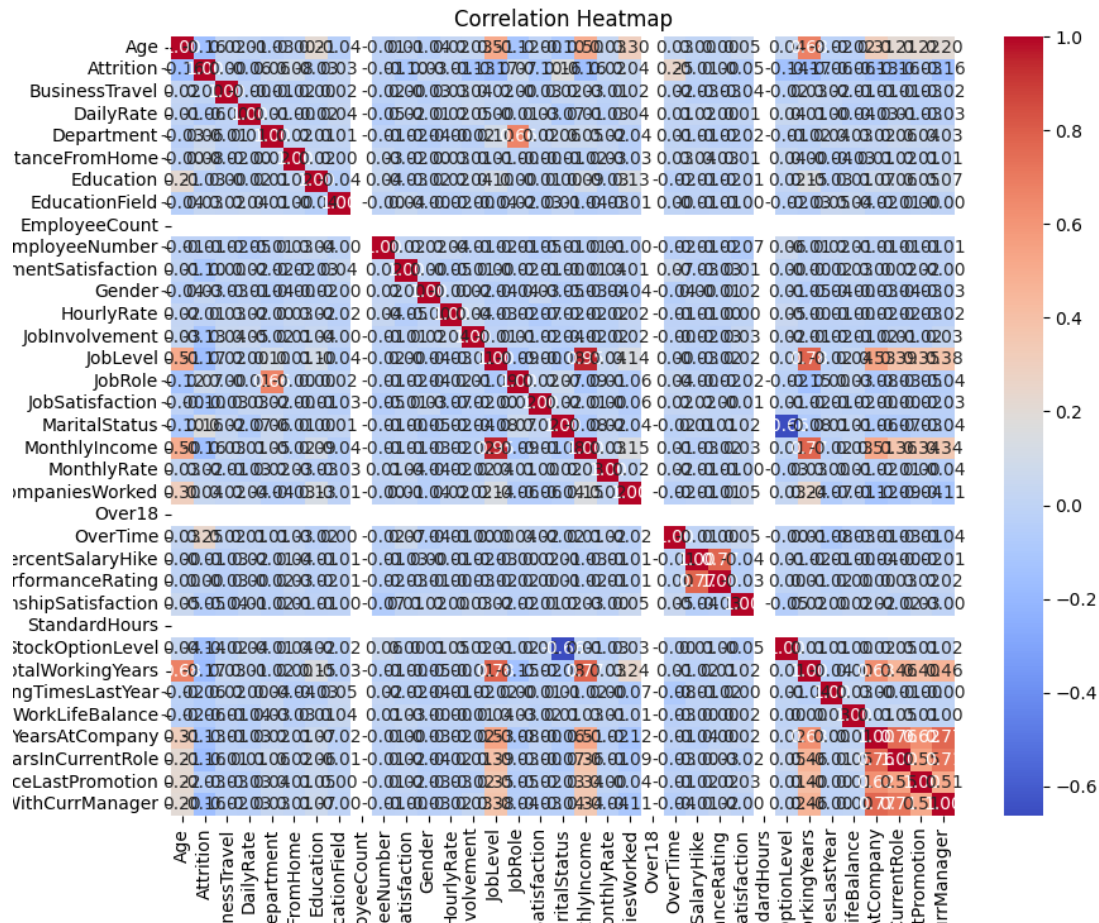


Figure 1: Attrition Distribution

- The heatmap highlights the relationships between various features and attrition, emphasizing the importance of job satisfaction, work-life balance, and other factors.



- The boxplot indicates that younger employees, particularly those between 25–35 years old, are more likely to leave.

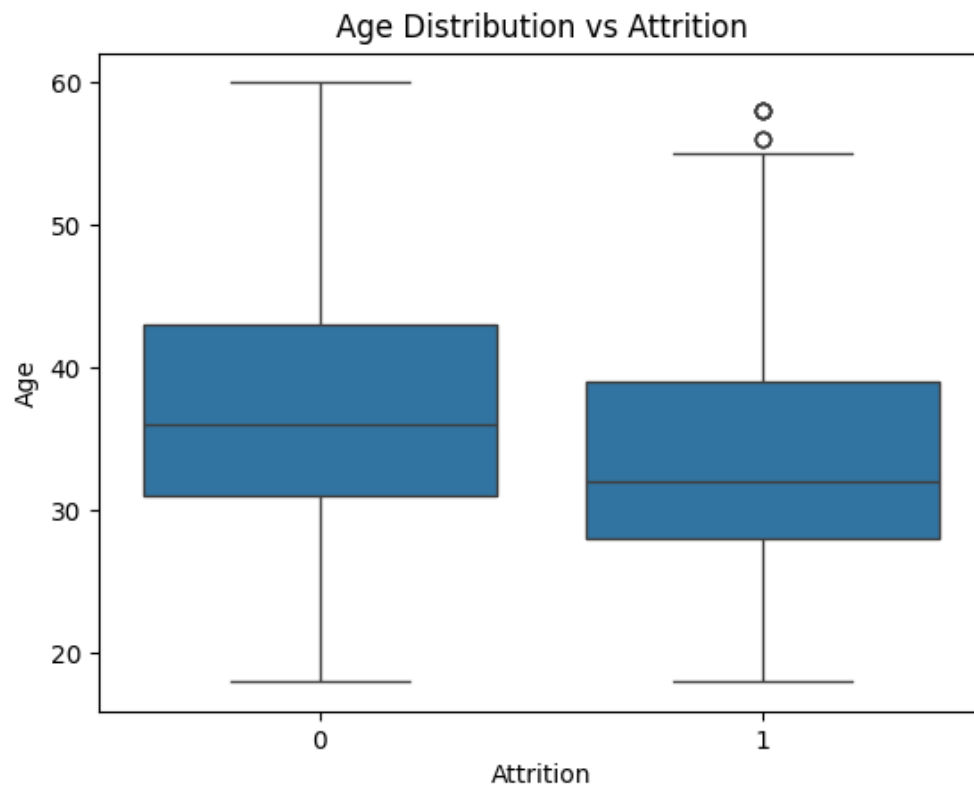


Figure 3: Age vs. Attrition

- Model Evaluation (Confusion Matrix):

The confusion matrix helps evaluate the model's effectiveness, showing its performance in predicting attrition.

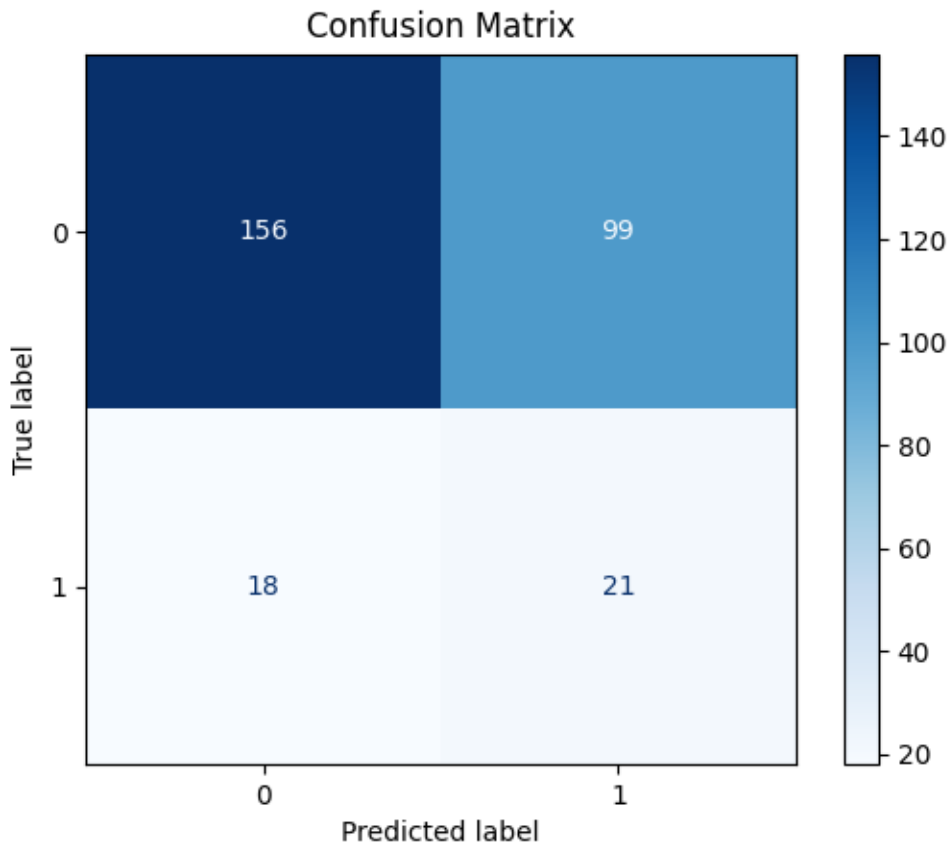


Figure 4: Confusion Matrix

Recommendations

1. Retention Strategies:

- Enhance career development plans and mentorship for younger employees.
- Offer competitive pay and flexible work options to improve satisfaction.

2. Proactive Monitoring:

- Use predictive modeling regularly to identify and support at-risk employees.

3. Engagement Programs:

- Conduct feedback surveys and address employee concerns promptly.
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Conclusion

Targeted strategies addressing satisfaction, work-life balance, and growth opportunities can significantly reduce attrition and foster a motivated workforce.