

Attrition Prevention Report

This report provides insights into employee attrition and suggests actionable strategies to reduce employee turnover.

Attrition Insights

The analysis of employee data and machine learning models highlights the following risk factors for attrition:

- 1 Low job satisfaction strongly correlates with attrition.
- 2 Overtime workers show a higher probability of leaving.
- 3 Employees with long commute distances tend to quit more.
- 4 Lower compensation levels increase attrition likelihood.
- 5 Lack of career development opportunities is a key driver.

Attrition Prevention Strategies

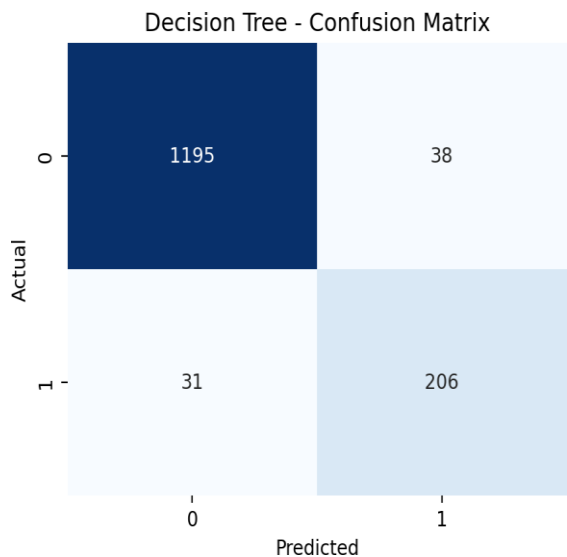
- 1 Promote work-life balance with flexible schedules and wellness initiatives.
- 2 Provide career growth opportunities through training and mentorship.
- 3 Offer competitive compensation and regular salary reviews.
- 4 Encourage employee engagement via feedback surveys and recognition programs.
- 5 Reduce overtime and monitor workload distribution.

Model Findings

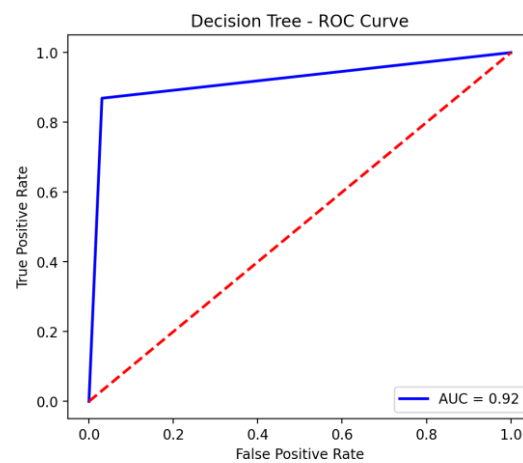
Machine learning models such as Decision Tree and Logistic Regression were trained to predict attrition risk. Their evaluation results are summarized below:

Decision Tree

Confusion Matrix:

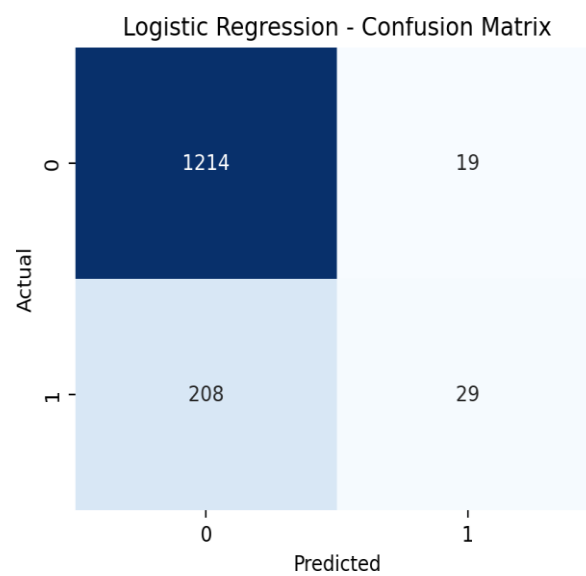


ROC Curve:

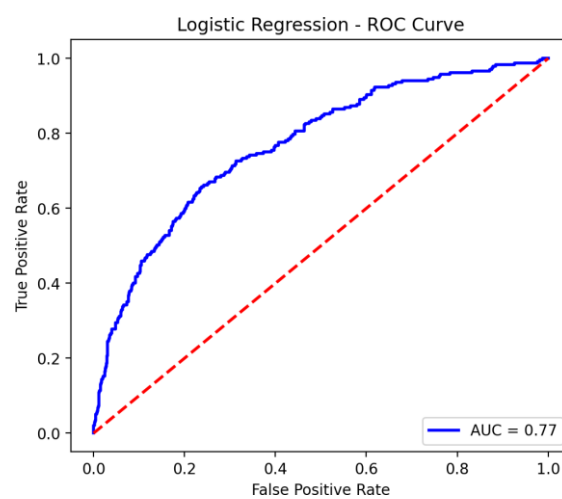


Logistic Regression

Confusion Matrix:



ROC Curve:



Recommendations

- 1 Implement targeted retention programs for high-risk employees identified by the model.
- 2 Introduce recognition and reward systems to improve morale.
- 3 Use predictive insights regularly to update HR policies.
- 4 Conduct exit interviews to validate model predictions.

Conclusion

Proactive attrition management supported by machine learning insights can help organizations retain top talent, improve employee satisfaction, and reduce turnover costs.

