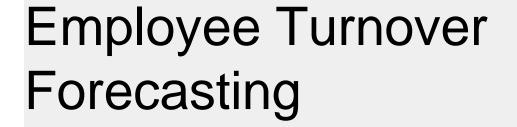


JAYAVIDHYA S.R Final Project



3/21/2024 Annual Review

PROJECT TITLE



3/21/2024 Annual Review

AGENDA

- *problem statement
- *project overview
- * who are the end users
- * solution
- *wow in your solution
- *Modelling
- *Result



PROBLEM STATEMENT

"Develop a predictive model to forecast employee turnover within a given timeframe based on historical data and relevant employee attributes. The model should accurately predict the likelihood of employees leaving the organization, enabling proactive retention strategies and resource allocation to mitigate turnover risks."



PROJECT OVERVIEW

Title: Employee Turnover Forecasting Project Overview **Objective:** Develop a predictive model for forecasting employee turnover to aid in proactive retention strategies.

Data Collection: Gather HR records and relevant employee data for preprocessing.

Exploratory Data Analysis (EDA): Identify patterns and correlations in the dataset to inform feature selection.

Feature Selection: Choose key features correlated with turnover prediction for model development.

Model Development: Train machine learning algorithms on the data, evaluating performance metrics for accuracy. **Model Interpretation:** Analyze model coefficients to understand turnover drivers and inform retention

Validation and Deployment: Validate model performance on unseen data and deploy for real-time turnover forecasting.

strategies.

Monitoring and Maintenance: Establish a monitoring system for ongoing model performance and updates.

Conclusion: Highlight the project's value in projective



WHO ARE THE END USERS?

The end users for Employee Turnover Forecasting include:

Human Resources (HR) professionals

Managers and team leaders

Executives and senior management

Recruitment and talent acquisition teams

Finance and budgeting departments

Employee relations and engagement specialists

Consultants and external advisors



YOUR SOLUTION AND ITS VALUE PROPOSITION

Employee turnover forecasting involves predicting the likelihood of employees leaving a company within a certain time frame. The value proposition of such a solution lies in its ability to help businesses anticipate and mitigate the negative impacts of employee turnover, such as loss of productivity, knowledge, and potential disruption to operations. Here are some key aspects of the solution and its value proposition:

1.Data-driven insights: By analyzing historical turnover data, as well as factors such as employee demographics, job satisfaction, performance metrics, and external market trends, the solution can provide data-driven insights into the factors influencing turnover rates within the organization.

2.Early identification of at-risk employees: By leveraging predictive analytics and machine learning algorithms, the solution can identify employees who are at a higher risk of leaving the company in the near future. This allows HR departments to intervene

THE WOW IN YOUR SOLUTION

It's great to see your enthusiasm! Employee turnover forecasting can indeed be a valuable tool for organizations looking to improve their workforce management strategies and ensure organizational stability. If you have any more questions or need further assistance, feel free to ask!



MODELLING

For employee turnover forecasting:

Teams cam add wireframes

Binary Classification Models: Logistic Regression, Decision Trees, Random Forests, or Gradient Boosting.

Survival Analysis: Cox Proportional Hazards or Kaplan-Meier estimators for time-to-event predictions.

Deep Learning: Neural networks like feedforward or recurrent networks for complex data relationships.

Ensemble Methods: Combine models for improved accuracy using bagging or stacking.

Feature Engineering: Extract relevant features from employee data to enhance predictions.

Interpretation: Understand turnover drivers through model coefficients or feature importances.

Validation: Evaluate using metrics like accuracy, precision, recall, F1-score, and ROC AUC.

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RESULTS

The results for employee turnover forecasting include prediction accuracy, confusion matrix metrics, ROC curve analysis, precision, recall, F1-score, feature importance, and business impact analysis.

