

Employee Attrition Prediction

UNDERSTAND & MANAGE YOUR EMPLOYEES BETTER

Problem & Motivation

- ▶ A number of employees leave due to various reasons
- ▶ Waste of time & money on training those employees
- ▶ Aim to increase the effectiveness of employee management & better allocate their resources.





Web App Demo

[HTTP://MSIA423-935455349.US-EAST-1.ELB.AMAZONAWS.COM/ABOUT](http://MSIA423-935455349.US-EAST-1.ELB.AMAZONAWS.COM/ABOUT)

Data Description

►Source:

<https://www.kaggle.com/datasets/colearninglounge/employee-attrition> a set of data points on the employees who are either currently working within the company or have resigned.

►RDS usage:

- Store processed data (related employee attributes and corresponding attrition results)
- Store newly added employee data (from user input)

EmployeeNumber	EnvironmentSatisfaction	JobInvolvement	JobLevel	JobSatisfaction	PerformanceRating	RelationshipSatisfaction	YearsSinceLastPromotion	WorkLifeBalance	MaritalStatus	Gender
1	2	3	2	4	3	1	0	1	Single	Female
2	3	2	2	2	4	4	1	3	Married	Male
3	4	2	1	3	3	2	0	3	Single	Male
4	5	3	1	3	3	3	3	3	Married	Female

Model

Random Forest Model:

- ❑ Offline model
- ❑ Binary classification
- ❑

Success criteria:

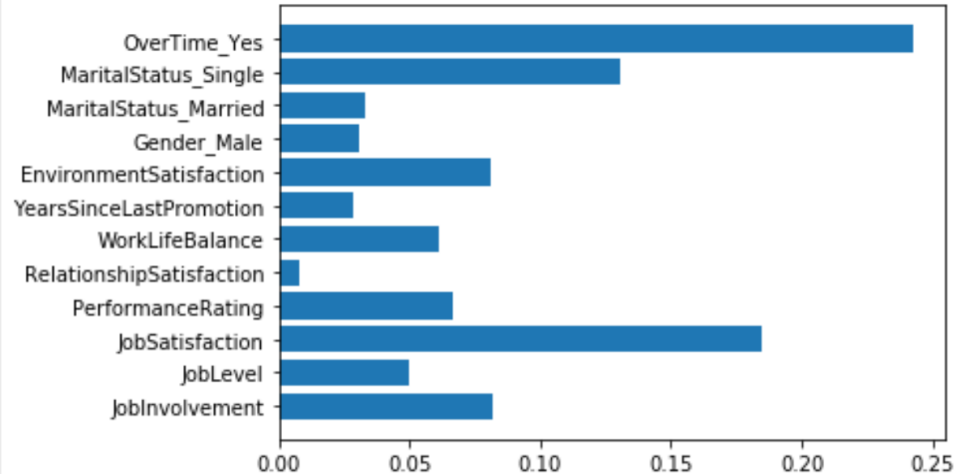
AUC

Accuracy

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AUC on test: 0.848
Accuracy on test: 0.873
Predicted negative Predicted positive
Actual negative      163             5
Actual positive      21             15
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An interesting insight

► WORKING OVERTIME IS MOST LIKELY TO RESULT IN EMPLOYEE ATTRITION





Thank you!

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