

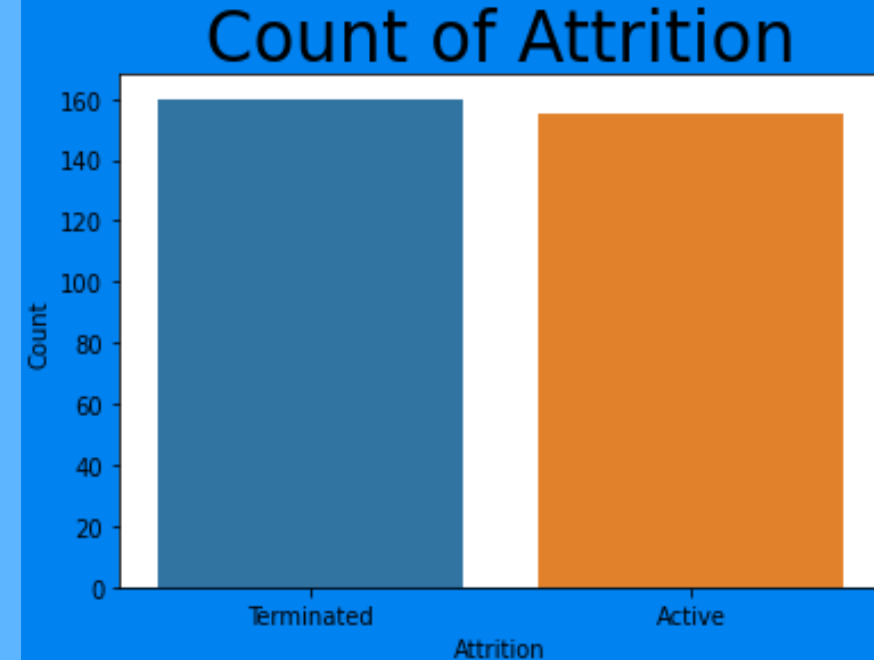
Use Case Presentation

By-

Varun Bhatnagar

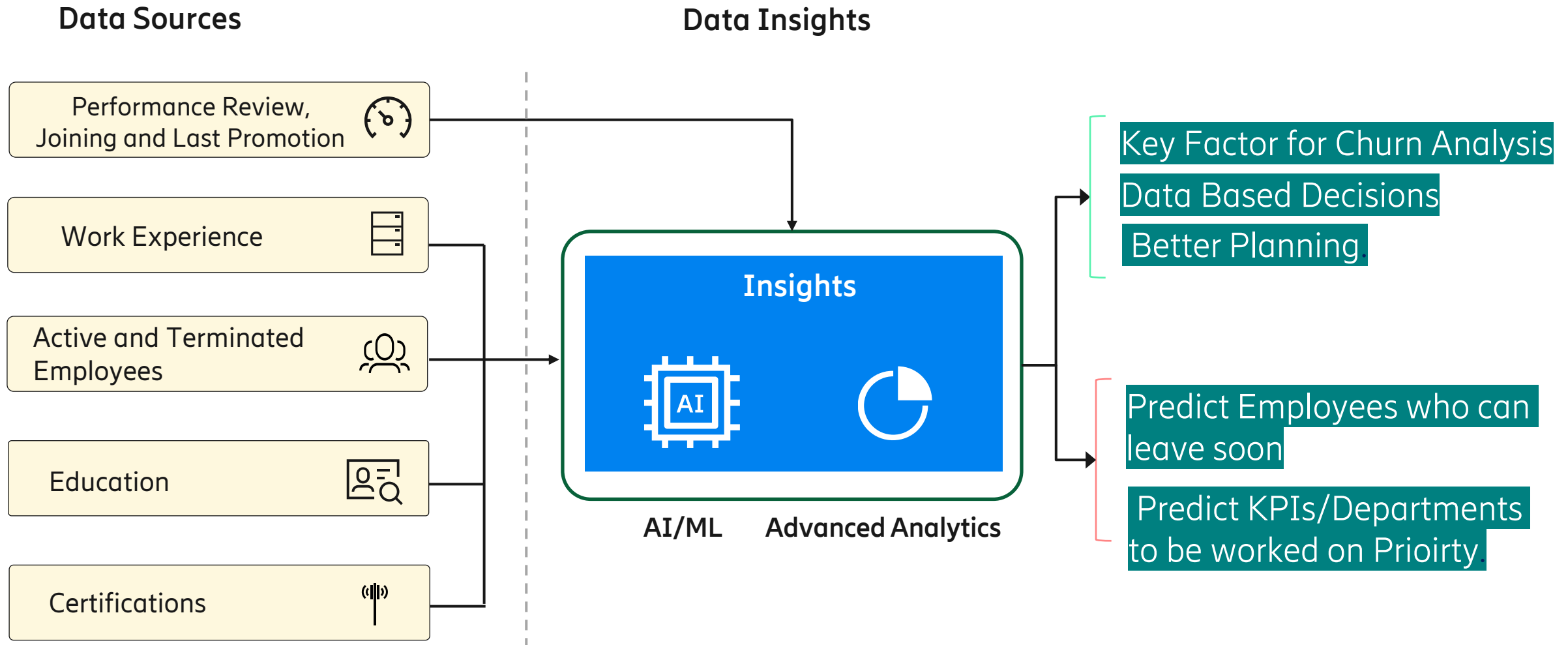
Business Requirements

- 1. Identify the profile/s of people who are likely to exit from the organization in the next 6-9 months.
- 2. Identify attrition risk and key attrition drivers against each employee in the organization.
- 3. Identify cohort-wise attrition drivers in the organization.
- 4. Identify the top Talent competitors (companies and Industries) where we are losing talent
- 5. Initiate the data-driven methodology to bring the change to help create a hyper-personalized experience to cater to the needs of the current workforce.



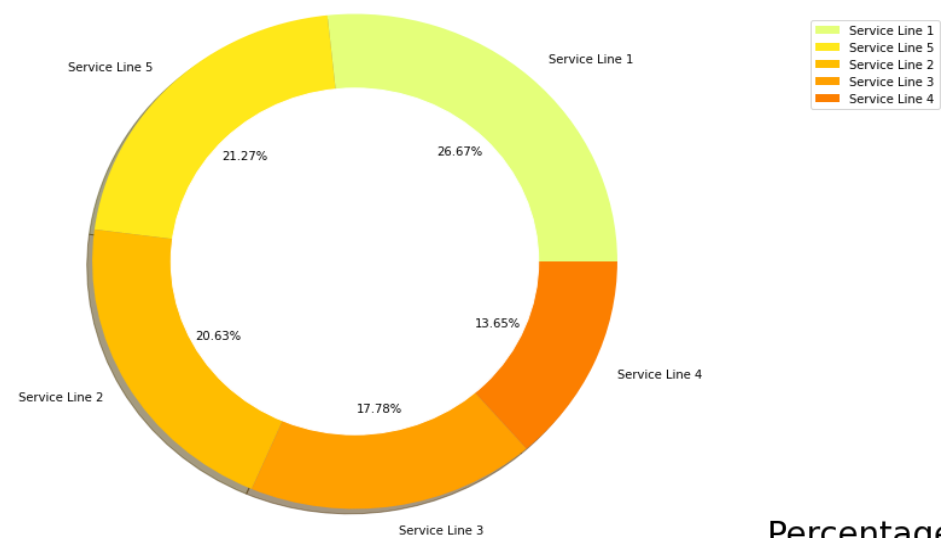
*49.21% for Managers
overall in ABC
Company

Employee Churn Data analytics

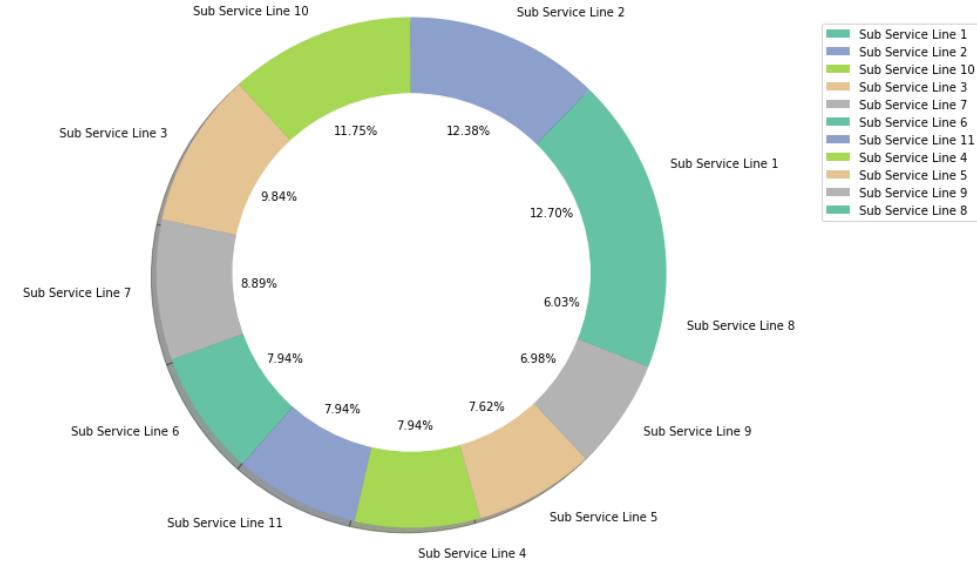


Understanding Data - 1

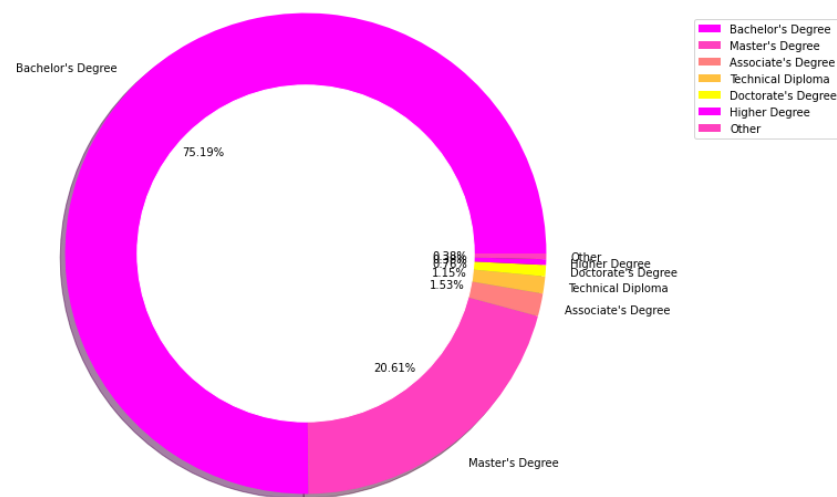
Employee Segmentation w.r.t Service Line



Percentage of Employees in various Sub Service Line

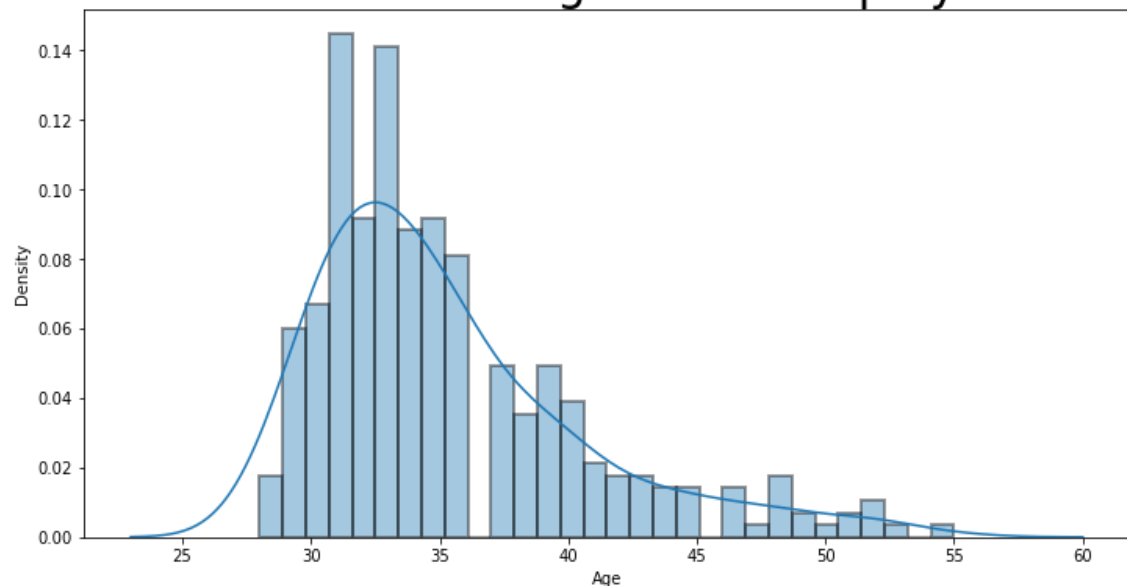


Percentage of Education Fields

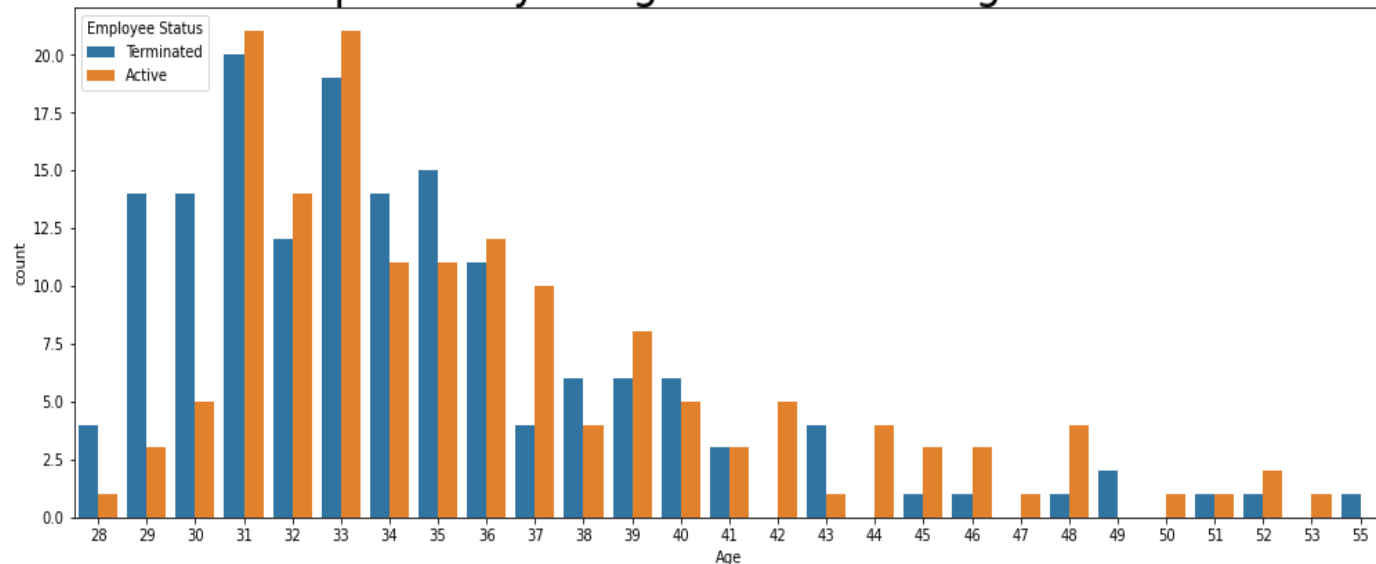


Understanding Data - 2

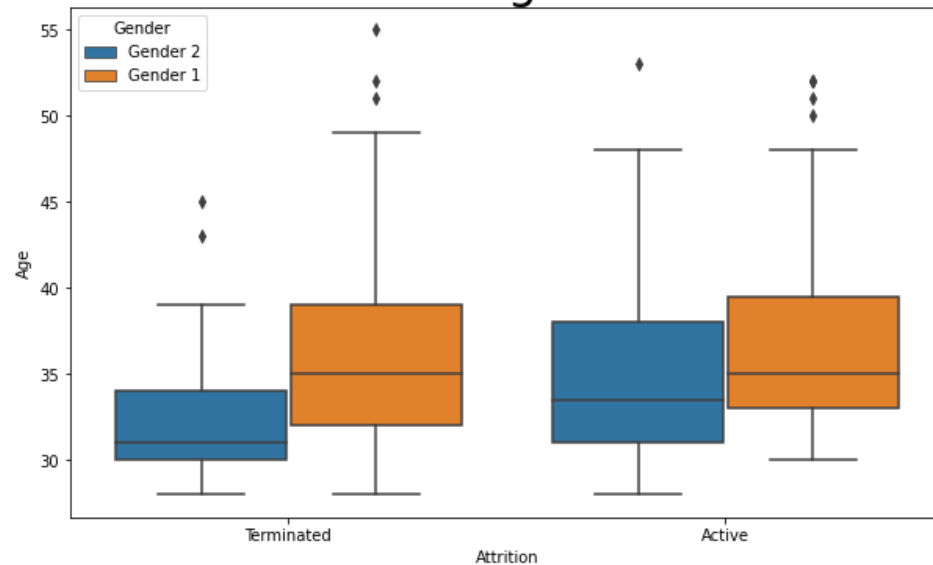
Distribution of Age of the Employees



Dependency of Age in determining Attrition

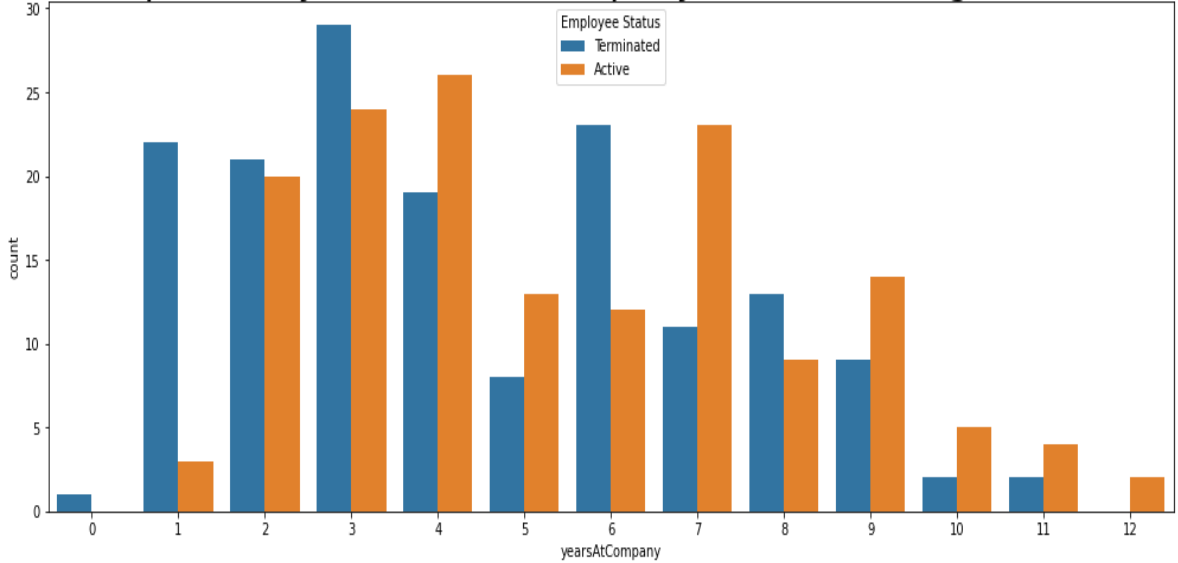


Attrition w.r.t Age and Gender

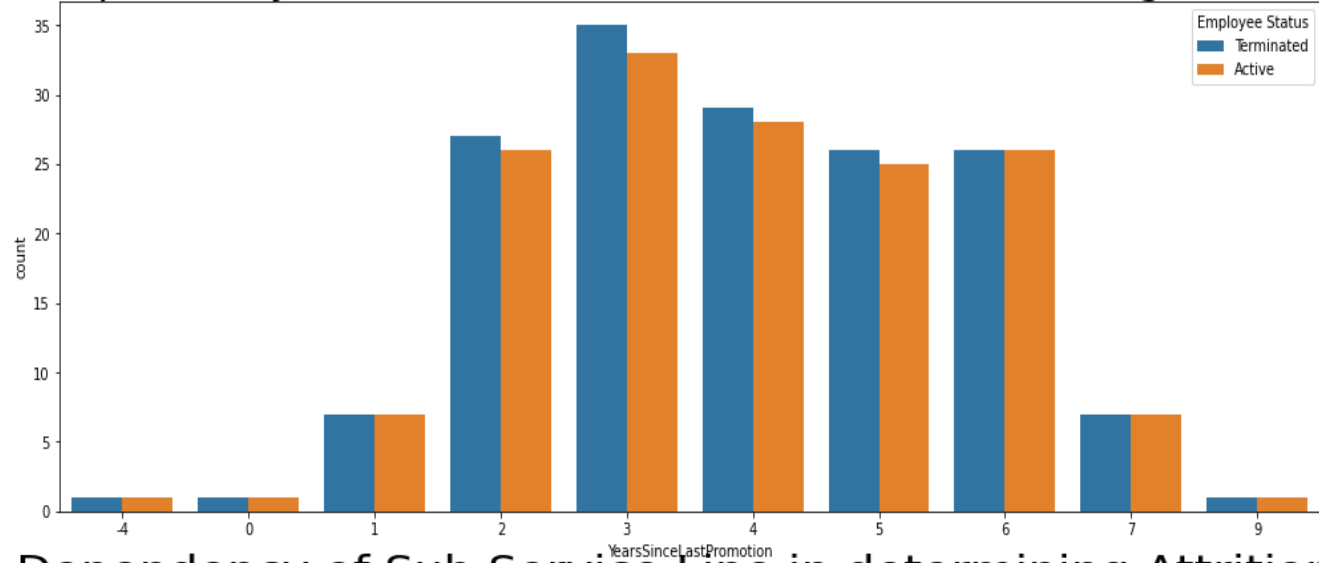


Factors Influencing Attrition

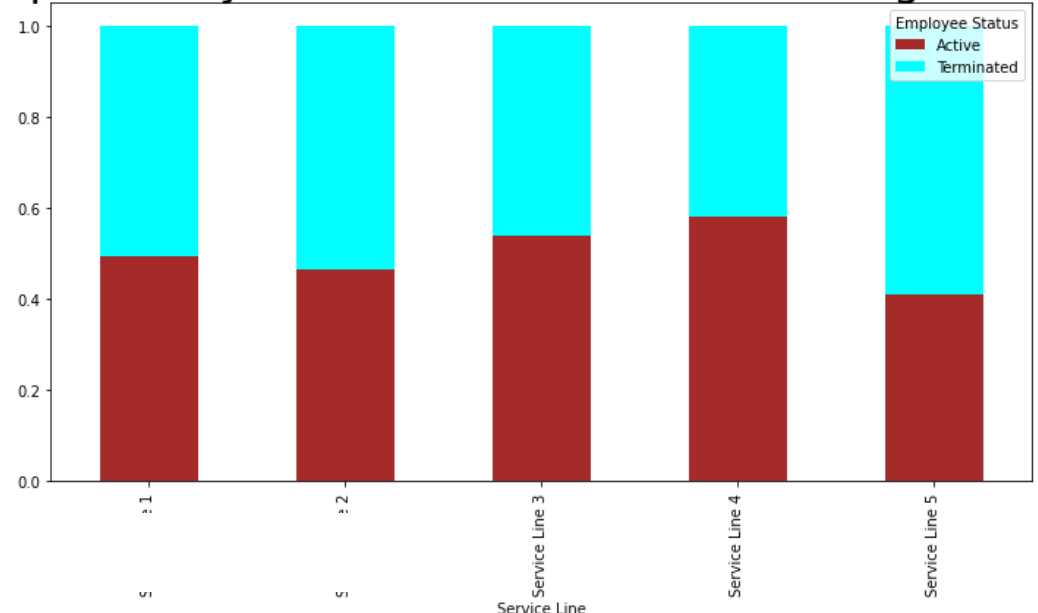
Dependency of Years at Company in determining Attrition



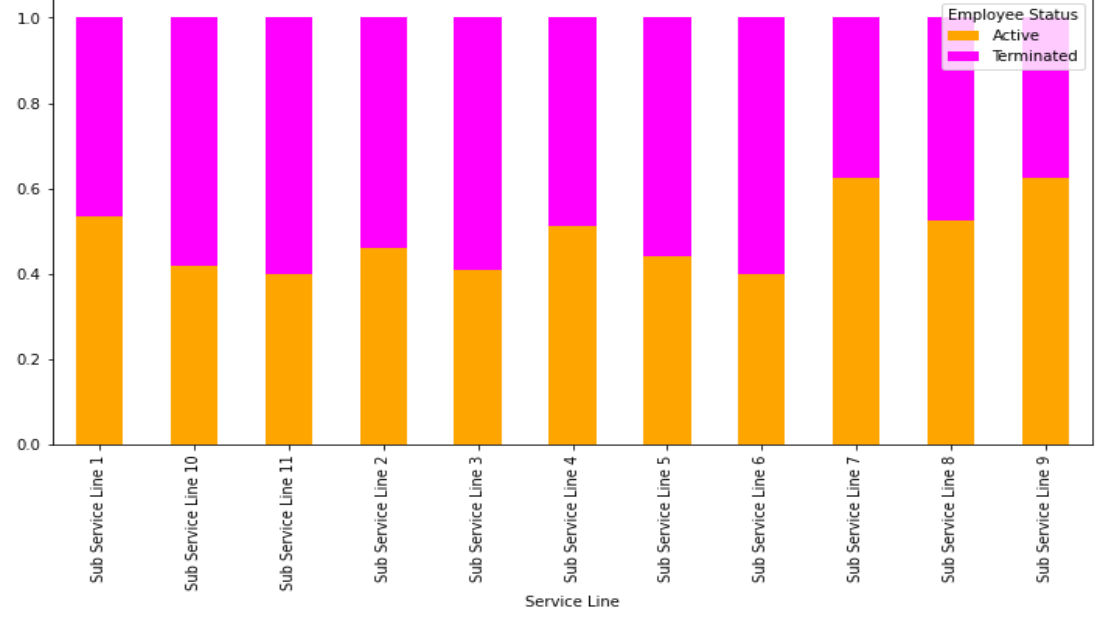
Dependency of YearsSinceLastPromotion in determining Attrition



Dependency of Service Line in determining Attrition

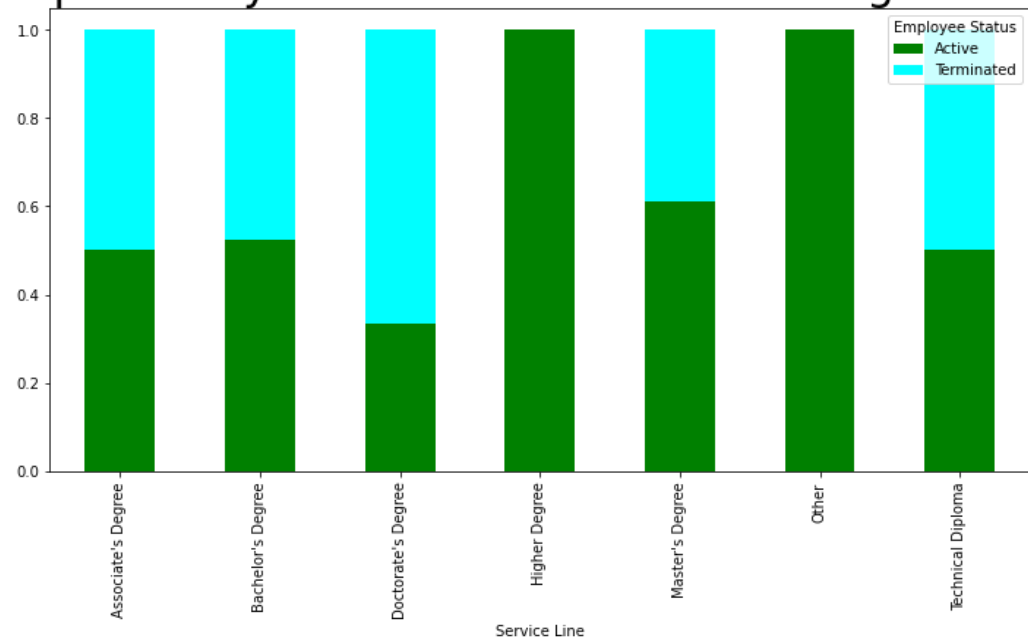


Dependency of Sub Service Line in determining Attrition

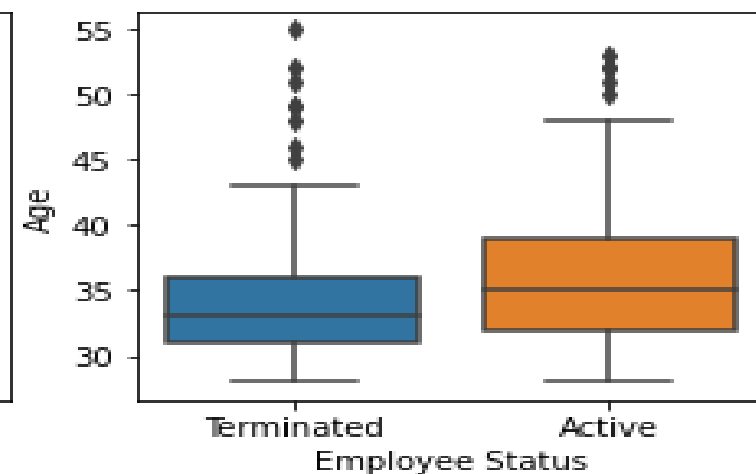
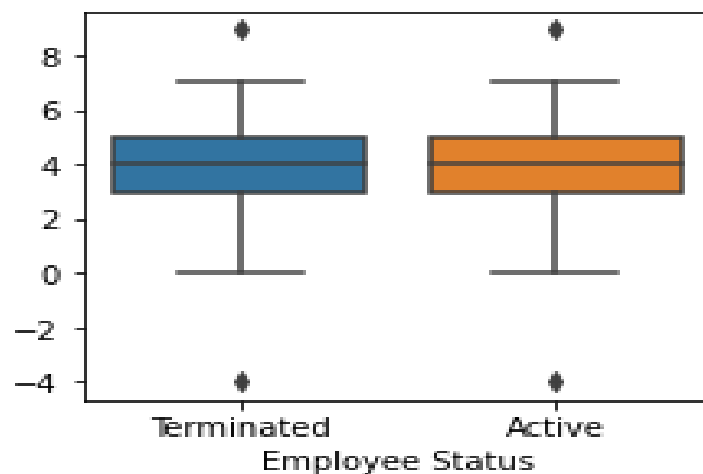
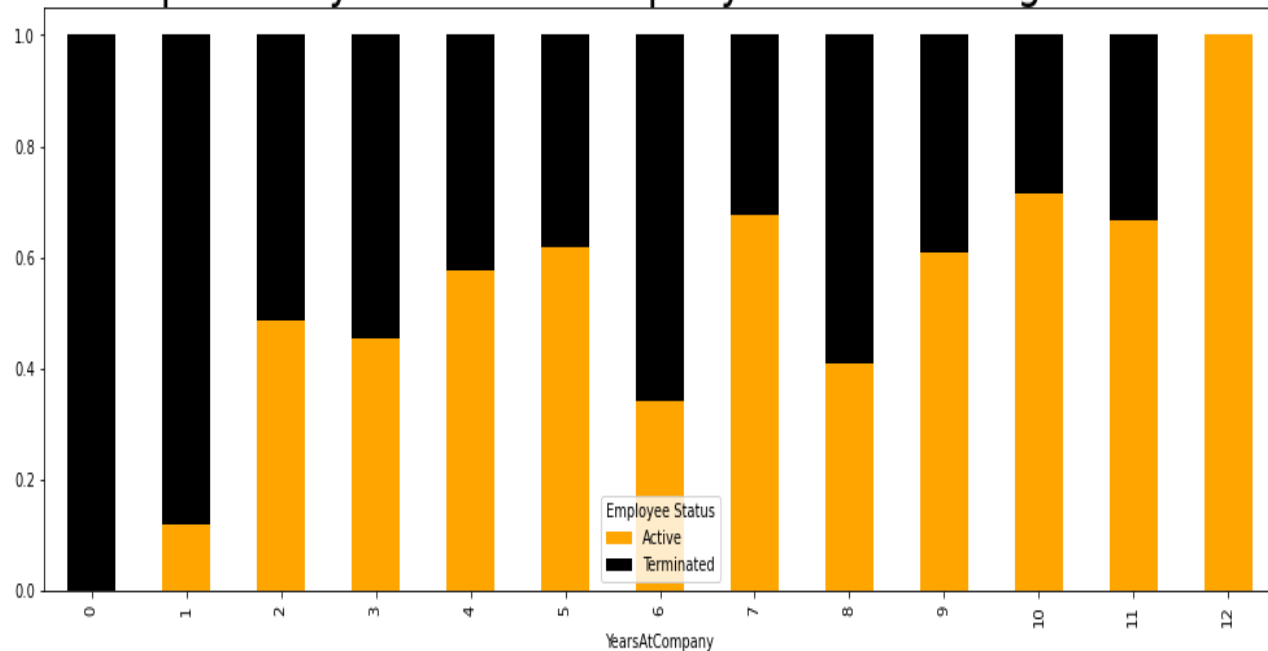


Factors Influencing Attrition - 2

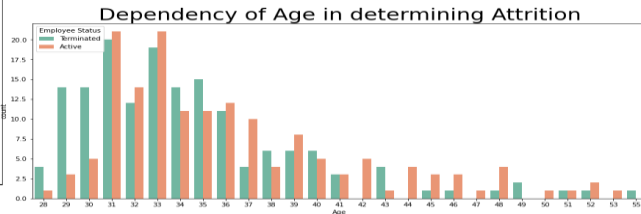
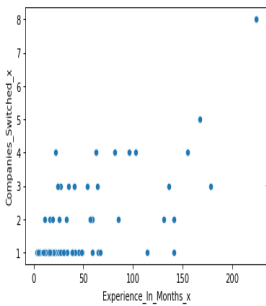
Dependency of Education in determining Attrition



Dependency of YearsAtCompany in determining Attrition

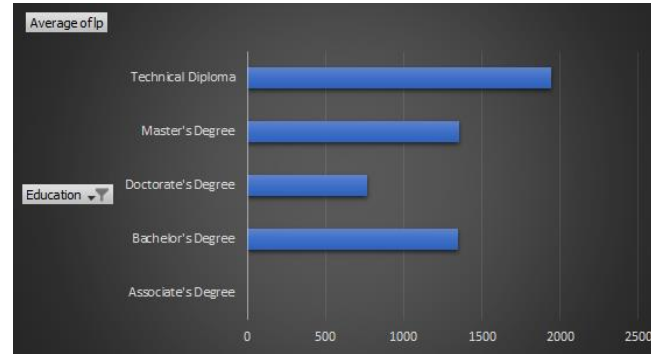


Key Factors

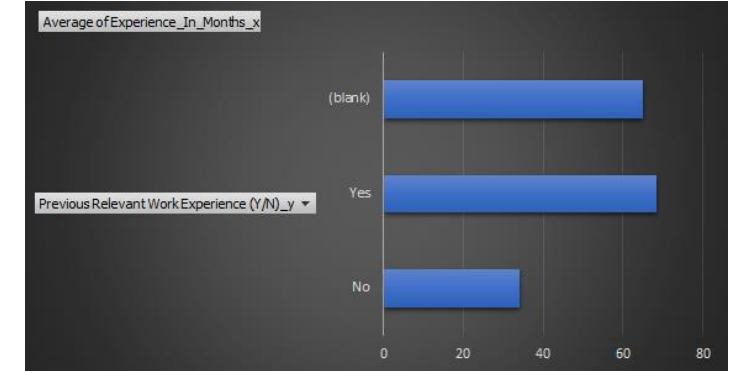


- People are leaving organization in early phase of their career.
- People with >1 certification tend to switch more

- People leaving the org are having minimum promotion
- People not given promotion for 2 years are leaving
- ABC company was showing upward trends with Promotion early but trend was not followed later



- People with Technical Diploma or Bachelors Degree are more frequently leaving ABC Company



- People with Relevant Work Ex from previous companies are staying more

- People are switching more from Service Line -5 and Sub Service Line - 3,6,10,11

Key KPIs
Selected for ABC Company's
HR to Look

• 1

• 2

• 3

• 4

• 5

AI/ML for Prediction

Use case overview

Use case

- AI/ML to for Churn Analysis in ABC Company
- AI/ML also to predict Key KPIs and critical areas where HR should focus immediately.



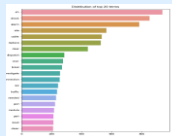
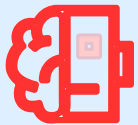
Methodology

- Feature set identification
- Data Labelling
- Offline Training of ML Models
- Churn prediction for short term and long term
- Classification analysis for Key KPIs

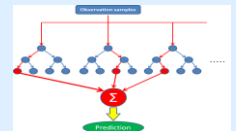
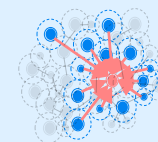


Technologies

- Sklearn , Python
- Algorithms : Random Forest Regressor, XG Boost
- Model Performance: ROC/Lift charts, AUC, F1 Score

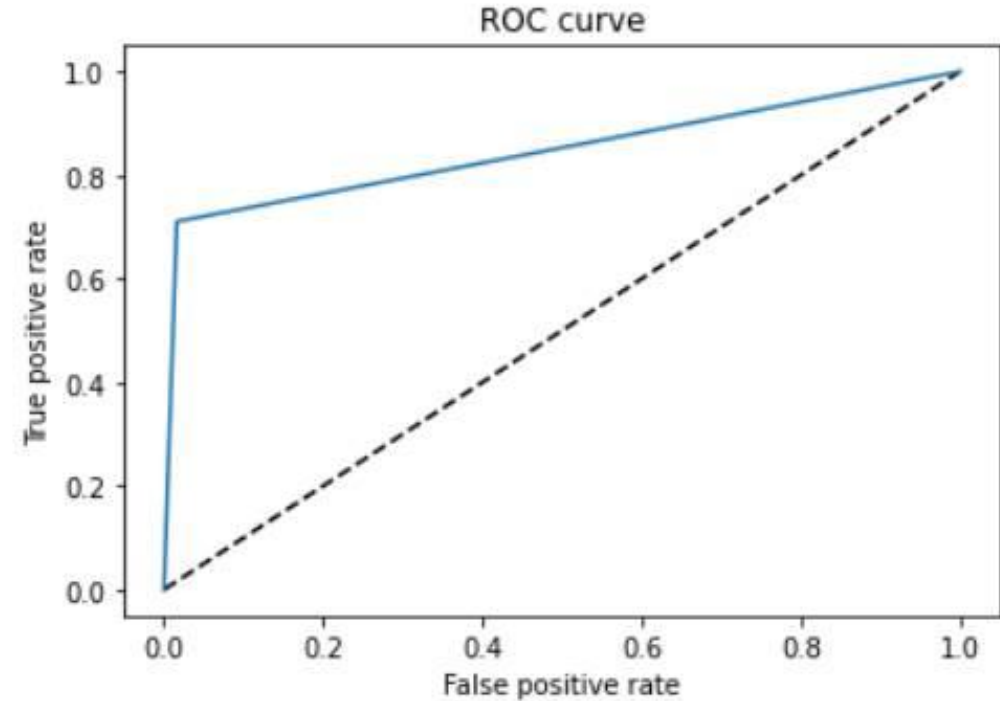
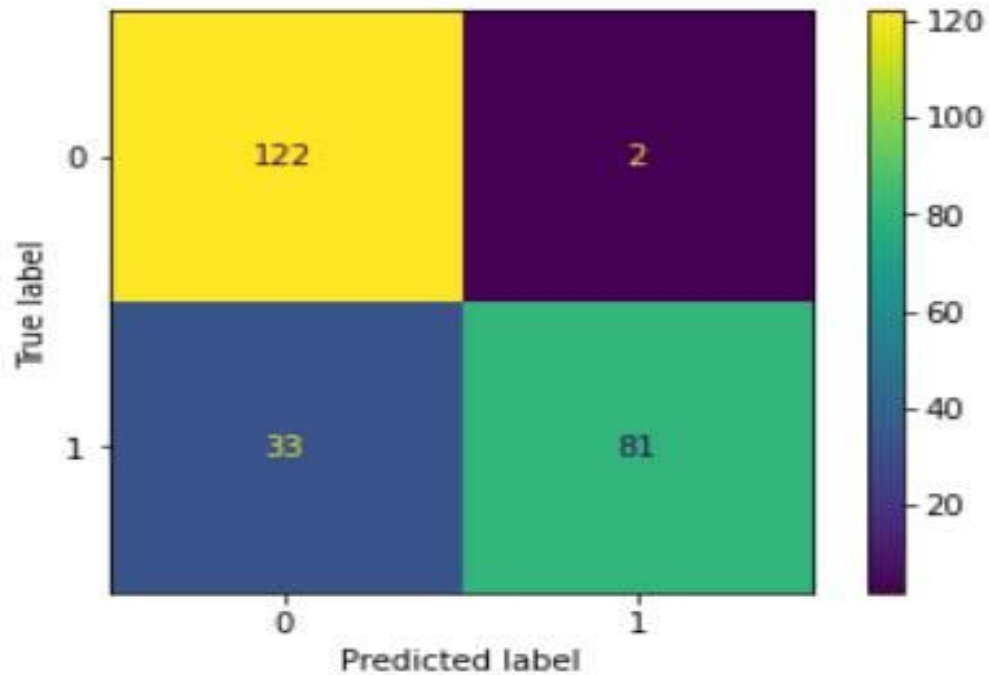


XGBoost



Prediction Model

- Several ML models have been built based on different input: Employee Info, Certifications, Work Ex, Education etc.
- Identify KPI based prediction models show the best results



Thank You