



“Unlocking the Customer Code:  
Empowering 6sense to Predict Churn  
with Advanced Data Analytics.”

*Performance Analytics*

***Mansi Sharma, Data Science Intern***

# Overview

Our project, named "6s-4-6s Renewal Analytics," is focused on **developing a data-driven tool to classify organizations** into different churn risk groups. By creating this tool, we aim to enhance our ability to **prioritize accounts with long-term value and improve our customer retention rate.**





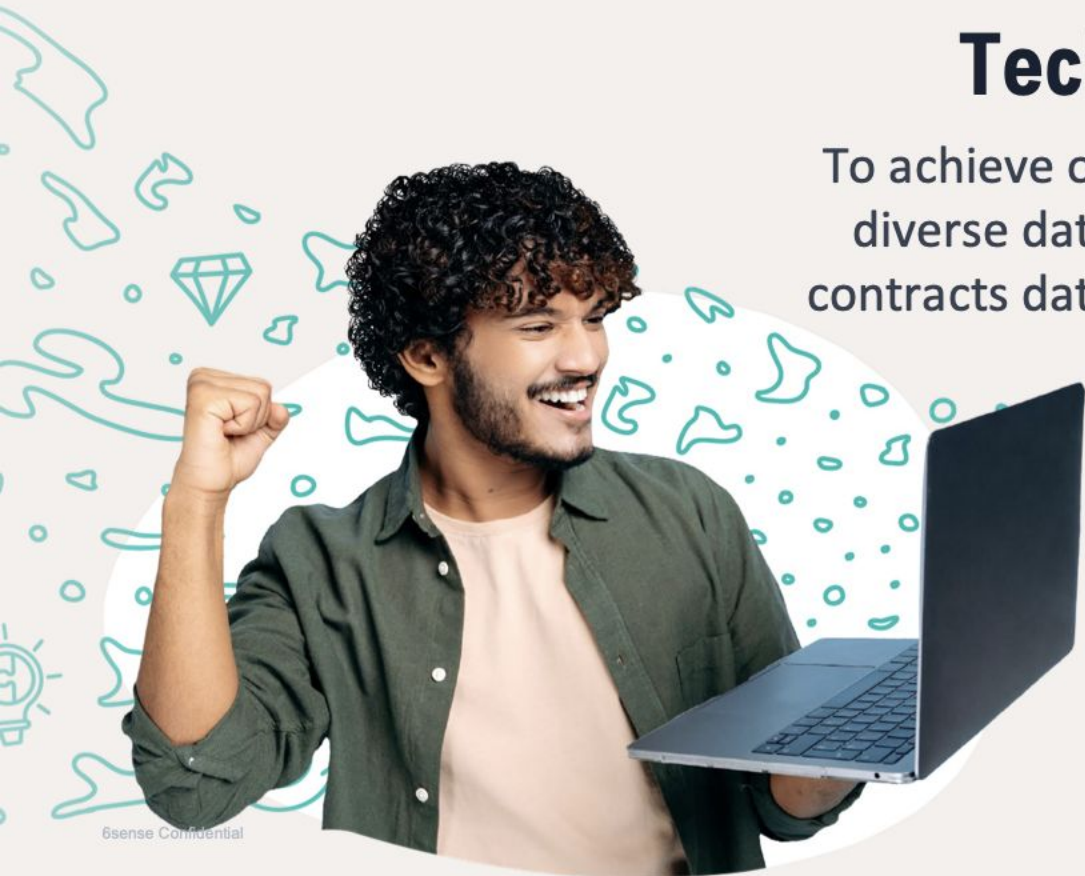
## Background and Objective

Currently, we lack data-driven tools to proactively identify customers at risk of churn. The objective of this project is divided into two main parts – **segmentation model** and **churn model**.



# Technical Requirements

To achieve our project's goal, we are utilizing diverse data sources. These sources include contracts data, customer data, 6sense scores, and product usage data.



# Data Collection and Preparation

- Identify Data Sources
  - Data Collection
    - EDA
- Feature Engineering



# Customer Segmentation

## Objective :-

We would like to segment the customers based on values for 6sense.

## Features :-

- ACV Amount – Total Amount for each customer
- Upsell – Boolean value ( if upsell was present or not )
- Frequency – number of renewals
- Age – How long they have been with 6sense ( if still active ) or if they churned then time difference between their first contract date till expiration date
- Recency – 0 ( for non-churned ) and –ve ( for churned that is time they churned )



# Main benefits of segmentation

1. Increase sales/revenue
2. Improve marketing
3. Increase customer retention / decrease churn



# Algorithm and Insights

- Clustering Algorithm
- Number of Clusters
- Insights from Clusters
- Rule Design
- Predictive Power



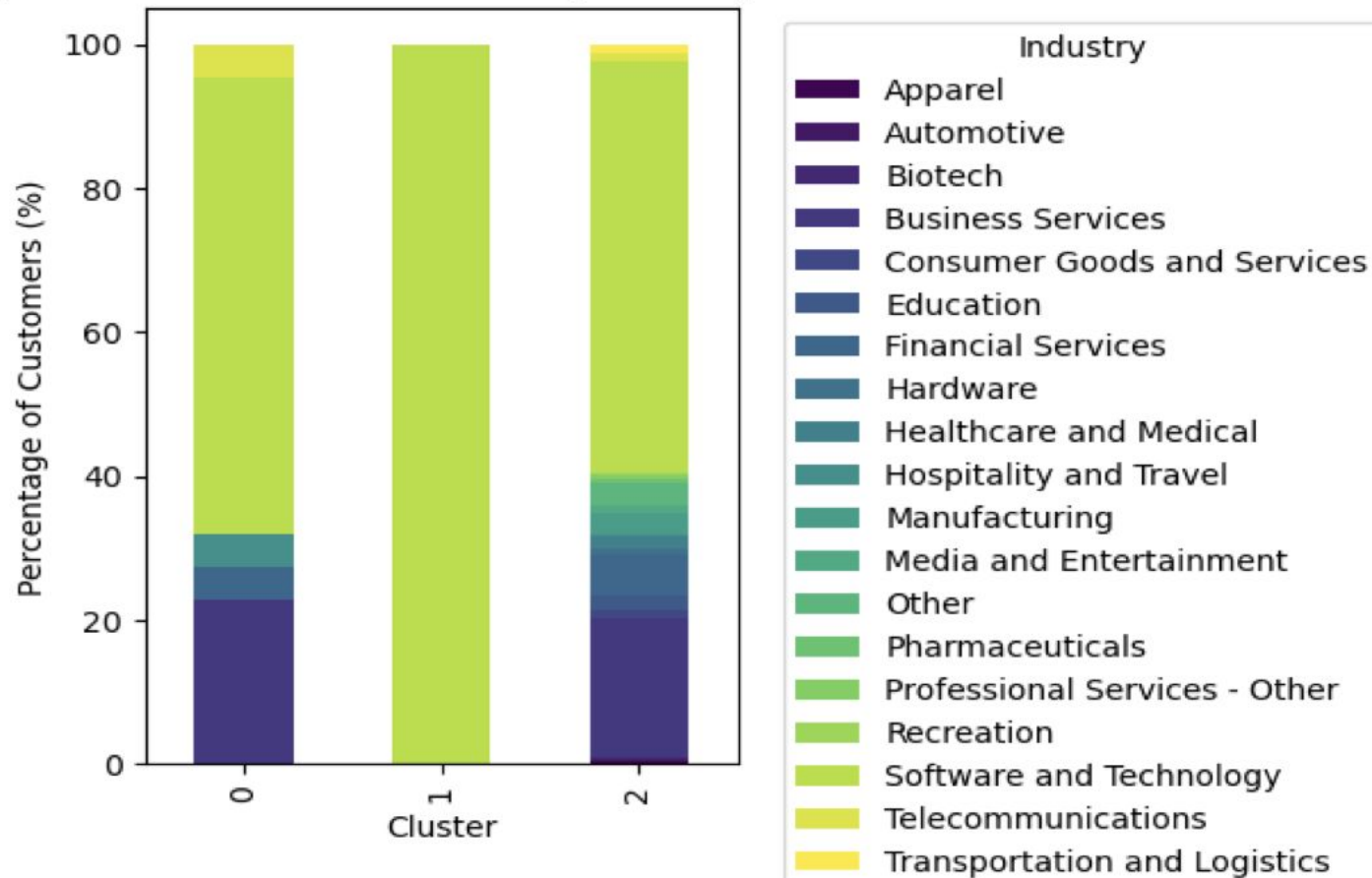
# Designing Rules for Churn Customers

## Churn Customers

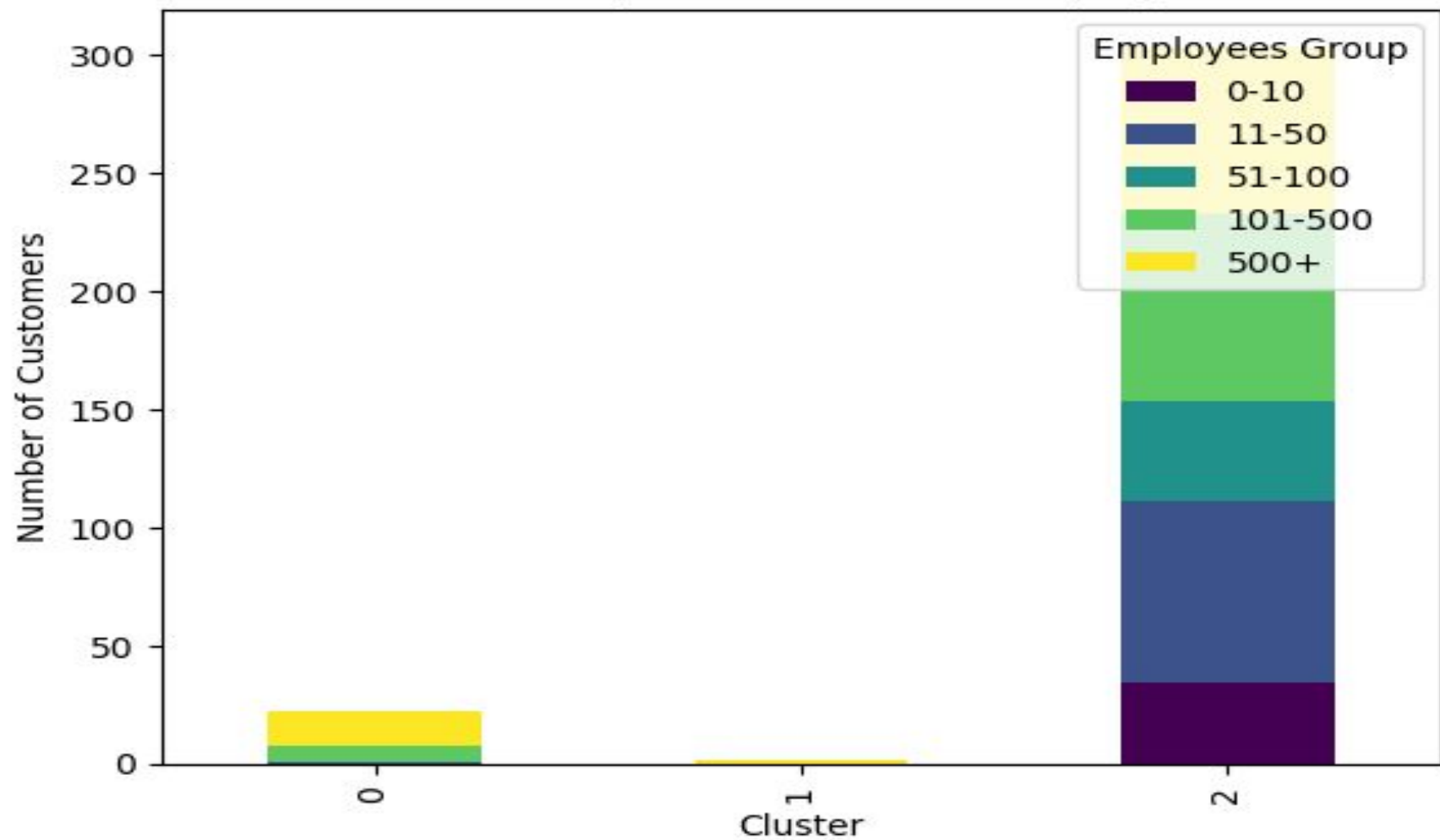
- **Segment 1 (Low Value)** : If the customers have lowest ACV ( less than 36k) or if their ACV is medium range ( 38k – 100k ) and they don't have any renewal ( so no frequency ) then we put them in segment 1.
- **Segment 2 (Medium Value)** : If the customers have medium ACV ( 38k - 100k ) but they have upsell and frequency ( some renewal ) then we put them in segment 2
- **Segment 3 (High Value)** : If the customers have highest ACVs ( 132k – 406k) along with upsell and frequency then we put them in segment 3

# Business Insights and Visualization – Churn Data

Percentage Distribution of Customers by Industry in Each Cluster



Distribution of Customers by Ultimate Parent Employees in Each Cluster



# Designing Rules for Non Churn Customers

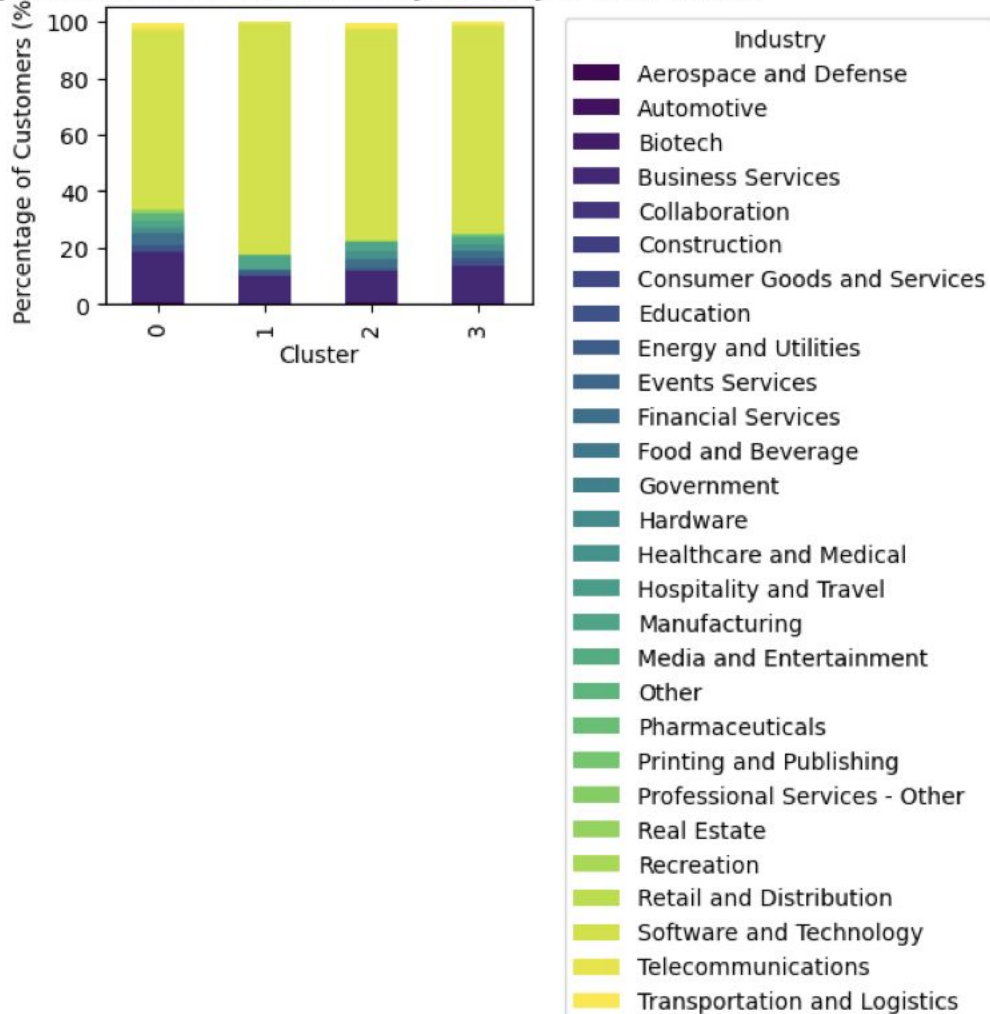
## Non Churn Customers

- **Segment 1 (Low value )** : If the customers have low ACV or if they have low-medium ACV and no frequency and no upsell then we put them in segment 1
- **Segment 2 (Low medium value)** : If the customers have low-medium ACVs with upsell and frequency or if they have medium ACVs but have low age and no upsell then we put them in segment 2
- **Segment 3 (High medium value)** : If the customers have medium ACVs and have medium age and have upsell or if they have high ACVs but have no upsell and no frequency then we put them in segment 3
- **Segment 4 ( High value)** : If the customers have high ACV with upsell and have high age and high frequency then we put them in segment 4

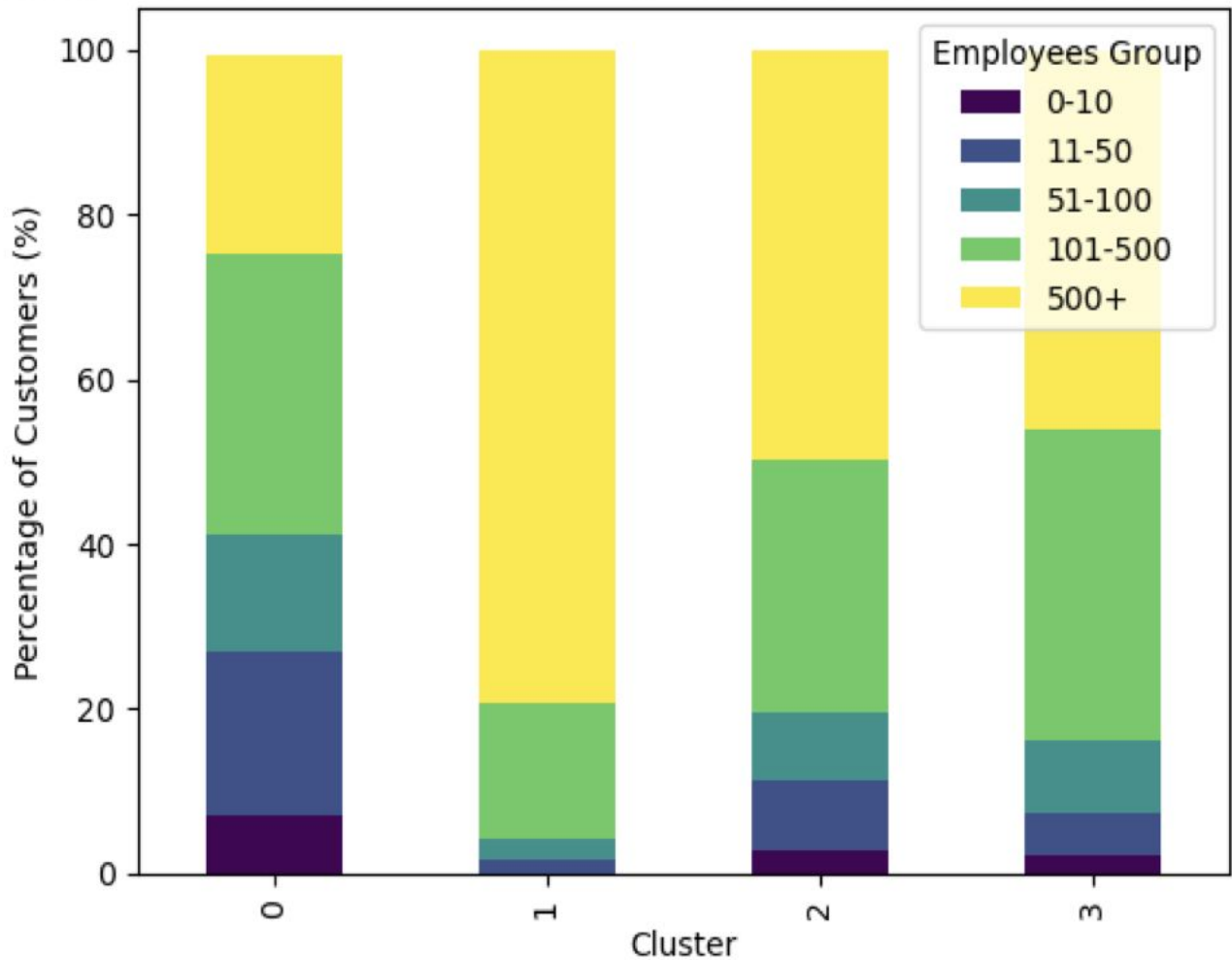


## Business Insights and Visualization – Non Churn Data

Percentage Distribution of Customers by Industry in Each Cluster



Percentage Distribution of Customers by Ultimate Parent Employees in Each Cluster



# Customer Churn

## Objective:-

We would like to create a model that would ideally predict or show definite classification variables that would or could be worked upon to prevent churning of the valuable customers.

## Features :-

- **Segments** – whether they created segments in last 6 months, if so how many, and in last month
- **Integrations** – Whether or not they had a type of integrations
- **SI KPIs** – Utilization, Penetration, Stickiness
- **JIRA support tickets** – Average Handle Time, Number of tickets and if they had any urgent tickets
- **Product plan**
- **Company firmographics**
- **Customer tenure**
- **Ad spend**

# Churn Modeling



## Model Evaluation

### *Precision*

*Of the users who churned, how many did the model predict would churn?*

### *Recall*

*Of the users the model said would churn, how many users actually churned?*



# Future Considerations

As we progress, we plan to apply the defined rules to future customers, enabling proactive risk assessment. Additionally, we will explore avenues for refining and enhancing our models based on ongoing data collection and analysis. This iterative approach ensures that our tool remains effective in dynamic market conditions.



# Conclusion

This project has been an exciting journey towards building a tool that will significantly impact our customer retention strategies.





# References and acknowledgements

<https://6sense.atlassian.net/wiki/spaces/datascience/pages/2869985342/6s-4-6s+Renewal+Analytics>

<https://www.linkedin.com/learning/me/my-library/in-progress?u=90131282>

Shoutout to the entire Data Science , Data Analytics team for continuous support with the data collection and feature defining process.

Special thanks to Mo and Kelly for being constant pillars of support.



# Thank you for listening



Questions ? Feedback ?