



# ALOK RANJAN

## COVER LETTER

To whomsoever it may concern to

Dear Sir,

I am sending this application for the position of AI consultant. I am a data scientist and I have applied the data science techniques to various departments like Human Resources, Marketing, Sales, Operations, Public Relations, & Production/Maintenance.

In HR I have developed an AI model to Reduce hiring and training costs of employees by predicting which employees might leave the company. Applying **Logistic regression, Random Forest & Artificial Neural Network** on employees data on their work experience, employee satisfaction, work life balance, age group, etc, post pre processing achieved the predictive attrition percentage score for the given employees.

In marketing, targeting the ads to customers by grouping them according to their choice and showing the ads of their needs plays a crucial role in revenue of a company. Me and my team's role was to know the behaviour of a customers by applying **K means clustering** and its optimal numbers using **Elbow Method** to perform market segmentation, understand **build and train autoencoders** using **Keras** to perform **dimensionality reduction**, understanding the intuition of **Principle Component Analysis (PCA)** to perform dimensionality reduction on customer details and group them accordingly so that marketers can launch targeted campaign tailored for their specific needs.

In sales department of companies, my team has developed **predictive modelling, time series forecasting, additive regression and Facebook prophet** to predict future weekly, monthly & yearly forecast trends based on the given data from 1100 stores on some features such as store promotions , store size, school and state holidays & types of products.

Also in public relationship, me with my team built predictive models based on Natural Language Processing **NLTK**, performed **sentiment analysis** on social media post .Applying feature extraction using **count vectors** and applying **Naive based classifiers** to classify them in **likelihood, prior likelihood & marginal likelihood** , With unbalance datasets, train **logistic regression**, learn to make prediction on encoded text data to know whether the customers are happy or not without going through massive numbers of tweets or reviews.

Respectfully,  
Alok Ranjan  
Encl: Resume