

# Aakash Pal

## Machine Learning Engineer

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### SUMMARY

A committed professional with a strong foundation in Machine Learning gained experienced over 1.3 years of immersive internship. Backed by 1.10 years of Technical Customer Support involvement, showcasing adapt troubleshooting abilities and effective communication. Driven by an authentic enthusiasm for data-driven solutions, I aim to excel in a Machine Learning role and make impactful contributions to a team dedicated to innovation and cutting-edge technologies.

### SKILLS

**Programming** (Python) | **Databases** (MySQL | MongoDB) | **APIs** (Flask) | **Statistics and Probability**  
**Machine Learning** (Scikit - learn) | **MLOps** (Github Actions | Docker | Sagemaker) | **Natural Language Processing**  
**Version Control** (Git | Github | Gitlab) | **Cloud Platforms** (AWS | Azure) | **Data Visualization** (Power BI)  
**Web Technologies** (HTML | CSS | Bootstrap)

### EXPERIENCE

#### Machine Learning Intern

iNeuron.ai

08/2022 – present | Bengaluru, India

**Project:** Women Affair Prediction

**Objective:** Predict the likelihood of women engaging in affairs.

- Constructed predictive models using diverse machine learning tools to forecast women's involvement in affairs.
- Identified Logistic Regression as the optimal model, achieving an accuracy of 67%.
- Developed a user-friendly Flask-based web application and launched it on the railway.app platform.

**Project:** Insurance Premium Prediction

**Objective:** Predict insurance premium amounts for customers.

- Executed a successful machine learning model for insurance premium prediction.
- Recognized GradientBoostingRegressor as the top-performing model, achieving an Adjusted R-squared value of 0.87.
- Established a user-friendly Flask-based web application and deployed it on AWS EC2.

#### Data Science & Business Analytics Intern

The Sparks Foundation

01/2023 – 02/2023 | India

- Supervised Learning Project- Predictive Analysis:** Applied Linear Regression to anticipate students' academic performance based on study hours, unveiling insights into performance patterns.
- Unsupervised Learning Project-Cluster Analysis:** Implemented KMeans on the Iris dataset to pinpoint optimal clusters for flower species classification. Enhanced classification accuracy through effective data pattern visualization using the elbow method.
- Classification Project-Decision Tree Modeling:** Developed a DecisionTreeClassifier for predicting flower species in the Iris dataset. Achieved an outstanding 96% accuracy with clear graphical representations.
- Technical Proficiency:** Gained hands-on expertise in Python programming, data preprocessing, and visualization. Leveraged machine learning algorithms using libraries including Pandas, NumPy, Matplotlib, Scikit-Learn, and Seaborn.

#### Business Intelligence Intern

iNeuron.ai

06/2022 – 07/2022 | Bengaluru, India

- Analyzed critical metrics to identify high-risk flight phases and bird species linked to bird strikes.
- Constructed a Power BI dashboard, visualizing FAA bird strike data (2000 - 2011) for the United States.
- Highlighted landing phases as particularly vulnerable to bird strikes, with gulls frequently involved.

## Technical Customer Support Executive

Dytel Technology Group

02/2020 – 11/2021 | Mumbai, India

- Installed Dyne software in restaurants, configuring operational parameters and POS hardware peripherals.
- Diagnosed operational issues and provided customer training.
- Conducted online installation and delivered technical support for Dyne's range of software products and services.

## PROJECTS

### Woman Affair Prediction

06/2023 – 06/2023

- Developed a machine learning model using the Logistic Regression algorithm to predict the likelihood of women having affairs.
- Utilized Seaborn and Matplotlib to create visually compelling charts and graphs, enabling a better understanding of feature relationships and target variable patterns.
- Trained the Logistic Regression model on training data, achieving 68% accuracy on training data and 67% on testing data, demonstrating reasonable generalization.
- Designed an intuitive Flask-based web application launched on the railway.app platform, offering an accessible user interface for data input and prediction retrieval.

### Insurance Premium Prediction

11/2022 – 02/2023

- Cleaned and analyzed a dataset of 1337 rows and 7 columns using data science techniques, encompassing data cleaning and feature engineering.
- Evaluated and selected the GradientBoostingRegressor model based on superior R-squared and adjusted R-squared scores.
- Achieved an impressive Adjusted R-squared score of 0.87 on the test dataset, effectively explaining 87% of the variation in health insurance premiums.
- Developed and deployed a user-friendly Flask-based web application on AWS EC2, ensuring global accessibility.
- Implemented a monolithic architecture CI/CD pipeline using GitHub Actions, ensuring continuous model updates with the latest data.

### Data Visualization of Bird Strikes

06/2022 – 07/2022

- Crafted a comprehensive Power BI dashboard to analyze and visualize FAA bird strike data from 2000-2011 in the United States, aiming to identify high-risk areas and scrutinize critical metrics such as flight phase and species.
- Utilized a variety of data visualizations including maps, bar charts, pie charts, donut charts, and line charts to effectively present essential metrics and simplify data interpretation.
- Incorporated interactive features like filters and slicers to enable detailed data exploration, revealing high-risk areas for bird strikes.
- Analysis revealed that landing phases experienced the highest number of strikes, with gulls frequently involved as the most prevalent species in bird strikes.

## EDUCATION

### Bachelor of Science in Information Technology

04/2017 – 05/2019 | Mumbai, India

Sathaye College

- Aggregating 6.98 CGPA

## CERTIFICATES

### Full Stack Data Science

Jul 2023 – No Expiry

### Statistics

Apr 2022 – No Expiry

## INTERESTS

Machine Learning | Data Scientist | Data Analyst