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Professional Summary

Detail-oriented and analytically driven Data Science enthusiast with a strong foundation in Python, Machine Learning, and Statistical Modeling. Skilled in handling structured and unstructured data, building predictive models, and generating insights to support data-driven decision-making. Passionate about applying analytics and AI in the **Insurance domain** to improve claim prediction, risk assessment, and customer retention.

Core Competencies

- Machine Learning & Predictive Modeling
- Python (Pandas, NumPy, Scikit-learn, Matplotlib, Seaborn)
- Data Visualization (Power BI, Tableau)
- SQL & Data Manipulation
- Statistical Analysis & Hypothesis Testing
- Feature Engineering & Model Evaluation
- Insurance Claims Analytics & Risk Scoring
- Natural Language Processing (NLP)

Academic Background

Bachelor of Technology in Computer Science and Engineering (Data Science)
Santhiram Engineering College, Nandyal, Andhra Pradesh — 2025

- Coursework: Data Mining, Statistics, Probability, Machine Learning, Database Management, Artificial Intelligence

Certifications:

- NPTEL – Introduction to Machine Learning
- **HackerRank Certifications:** SQL (Basic), SQL (Intermediate)

Academic Projects

Healthcare Provider Fraud Detection Using Machine Learning
Python, Scikit-learn, Pandas, Numpy

- Built Random Forest and Logistic Regression models to detect fraudulent healthcare providers from Medicare claims data.
- Achieved **85% accuracy** using feature engineering (50+ features), class imbalance handling, and hyperparameter tuning
- Automated data preprocessing using Python scripts, improving processing efficiency by 40%.

Patient Readmission Prediction Using Machine Learning

Python, Pandas, Scikit-Learn

- Built binary classification models to predict hospital readmission risk for diabetic patients.
- Performed EDA and feature engineering on utilization history, clinical, and hospital stay features.
- Trained Logistic Regression and Random Forest models, achieving ~**61% accuracy** and improved recall for readmitted patients.

Insurance Claims Analysis

Python, Pandas, SQL, Power BI

- Analyzed motor insurance policy data to understand claim behavior and key risk factors using Python-based EDA.
- Evaluated claim rates across vehicle segments, fuel types, and safety features such as airbags, ESC, and NCAP ratings.
- Built an interactive **Power BI dashboard** showcasing claim KPIs, claim rate comparisons, and customer risk profiles.

Technical Skills

Programming: Python, R, SQL, DAX, Power Query

Libraries: NumPy, Pandas, Scikit-learn, Matplotlib, Seaborn, TensorFlow (Basic)

Databases: MySQL, SQL Server, PostgreSQL

Visualization Tools: Power BI, Tableau, Matplotlib, Excel

Version Control: Git, GitHub

Internships

AIMERS – Artificial Intelligence Intern

Duration: June 2024 – August 2024

- Supported the data analytics team in processing claim data and preparing trend reports using SQL and Power BI.
- Assisted in anomaly detection for fraudulent claim analysis using classification models.
- Improved data reporting efficiency by 25% through automated dashboards.

Achievements

•Participated in the NASSCOM FutureSkills Data Science Hackathon and gained hands-on experience working on a real-world challenge.

• Published research paper on **"Machine Learning-Based Chatbot System"** in the *International Conference on Research and Development in Information, Communication and Computing Technologies (ICRDICCT'25).*