Birva Chudasama

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SUMMARY

Data Analyst with advanced expertise in SQL, Python experienced in managing large datasets, data warehouses, and Big Data environments. Skilled in complex SQL for data migration, issue resolution, and transformation mapping with strong RDBMS (MySQL) knowledge. Proven ability to deliver high-quality analytics and documentation in Finance, Risk Management, and regulatory domains while collaborating with global teams across time zones.

TECHNICAL SKILLS

Programming & Analytics	• python (Pandas, NumPy, Scikit-Learn), NLP (NLTK, SpaCy),
Tools & Technology	• Machine Learning, Predictive Modeling, PySpark, A/B Testing, Statistical Analysis: Probability, Distributions, Hypothesis Testing
Business Skill	• Power BI, Tableau, AWS, Visual Studio, Excel, MySQL, Data warehousing, Git, API Integration
	• Data Storytelling, Requirement Gathering, Documentation, Global Team Collaboration

PROFESSIONAL EXPERIENCE

Balasinor College of Polytechnic – Gujarat, India

Data Analyst & Assistant Lecturer – Apr 2020 – Dec 2023

- Developed a Python + MySQL application to automate fee collection, validation, and receipt generation for 10,000+ student records, reducing manual errors by 30%.
- Designed and implemented data cleaning and processing pipelines (validation, deduplication, normalization) to ensure accuracy and consistency in a normalized database schema.
- Built and deployed Power BI dashboards for real-time financial tracking, reducing reconciliation time from 3 days to same-day reporting.
- Created a qualitative data analysis tool to automate theme extraction and sentiment analysis from survey responses.
- Designed an NLP pipeline to classify sentiment and extract actionable insights, improving efficiency and accuracy of survey analysis.
- Developed an interface that streamlined survey analysis workflows, significantly reducing manual review effort and turnaround time.

Academic Projects

NYC Motor Vehicle Collisions & Complaints – Smart City Analytics

- Conducted data cleaning, feature engineering, and forecasting on NYC crash data using SARIMA/Prophet.
- Integrated NYC 311 API for real-time risk alerting and monitoring.
- Designed interactive dashboards (Power BI) to track crash patterns and complaint clusters for stakeholders.

Canadian Labour Force & Twitter Sentiment Analysis

- Combined Statistics Canada Labour Force Survey with Twitter sentiment data for workforce insights.
- Applied Logistic Regression, KMeans clustering, sentiment analysis, and A/B-style evaluations to uncover links between employment trends and public opinion, supporting economic and workforce planning.
- Delivered insights to support economic planning and labor force strategy.

Toronto Collision Patterns Dashboard (2010–2023)

- Analyzed 1.2M+ Toronto collision records with traffic, weather, and spatial

EDUCATION

Georgian College:
PG Big Data Analysis, Artificial Intelligence (2024 – 2025)
CGPA:3.7

Gujarat Technological University:
B.E. Information & Technology (2014-2018)
GPA:3.3

PROJECTS WORKED ON

- NLP-driven qualitative data analysis and predictive analytics projects
- Smart city, labor market, and collision pattern analytics with dashboards
- RLHF pipeline for text summarization using human feedback and Actor-Critic reinforcement learning to fine-tune a language model
- Built an AutoML (TPOT) and Actor-Critic RL pipeline for structured data, optimizing predictions and iterative decision-making policies.

DOMAINS

- Finance & Banking
- Big Data & Smart City Analytics
- Fraud Management
- Machine Learning & AI

SOFT SKILLS

- Data Storytelling & Requirement Gathering
- Stakeholder & Global Team Collaboration
- Problem Solving & Critical Thinking
- Documentation & Knowledge Sharing
- Positive Attitude & Adaptability

JOB TYPE

datasets.
- Performed geospatial hotspot analysis using shapefiles (Centreline v2 – 4326).
- Built a Tableau dashboard to visualize collision patterns and support data-driven decision