Alisha Tak

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SUMMARY

A detail-oriented Data Analyst with a strong foundation in data science, statistical modelling, and big data analysis. Proficient in Python, R, SQL, Tableau, and ArcGIS. Adept at transforming raw data into actionable insights through statistical techniques and visualization tools. Currently pursuing MS in Data Science and seeking full-time opportunities.

EDUCATION

- **University of Massachusetts Dartmouth, MA** **June 2025**
  Master of Science, Data Science, GPA: 3.95/4.0
- **M.B.M Engineering College** **September 2020**
  Bachelor of Engineering, Mechanical Engineering, GPA: 8.07/10.0

EXPERIENCE

- **University of Massachusetts Dartmouth, MA** **Sep 2024 – Dec 2024**
  Teaching Assistant for Database Systems
  - Mentored 70+ students in understanding Relational databases, SQL, queries, and Database Concepts.
  - Assisted the professor by grading assignments, proctoring exams, and conducting office hours to help students.
- **MassDOT, Boston, MA** **May 2024 – Aug 2024**
  GIS Data Analyst Intern
  - Worked on ESRI's ArcGIS Software tools to analyze crash data for safety improvement.
  - Geocoded 500+ crash reports, mapped 200+ speed regulations, and quality checked crosswalk data using ArcGIS.
  - Collaborated with cross-functional teams to provide data-driven insights for transportation planning.
- **National Engineering Industries** **Oct 2020 – May 2023**
  Quality Assurance Analyst
  - Administered 95+ process-oriented audits; aimed for improving manufacturing processes. The data collected from process audit was analyzed for identifying process improvement actions.
  - Developed an automated audit data capture system to improve audit efficiency and quality tracking.
  - Created dynamic dashboards and reports to visualize defect trends and inform stakeholders.
  - Collaborated with stakeholders to align customer requirements with production deliverables.

SKILLS

- Programming language: Python, R, SQL.
- Data Tools: Advanced Excel, Tableau, Power BI, MySQL, BigQuery, ArcGIS and Flask.
- Statistical Techniques and Machine Learning: Regression Analysis, Decision Tree, Random Forest, Clustering, SVM, Ensemble Methods.
- Database & Big Data: ETL, Data Cleaning, Snowflake and AWS.
- Business & Process Improvement: Business Intelligence, Data-Driven Decision-making, Stakeholder Collaboration.
- Data Quality Management: Data Profiling, Cleansing, Governance, and Validation.

CERTIFICATIONS

- Google Data Analytics Professional Certificate **February 2025**
- Intermediate Python & SQL by Data Camp. **March 2023**
- MS Excel Champion Intermediate Level by HR Sutra & CorpKonnect. **December 2021**

PROJECTS

- **Machine Learning Evaluation on Network Traffic Dataset** **April 2025**
  Master's Thesis – Conducted exploratory analysis on a large-scale network traffic dataset and evaluated SVM, Decision Tree, and Random Forest models. Applied SMOTE to address class imbalance, performed cross-validation, and assessed model performance using precision, recall, and AUC-ROC.
- **Socioeconomic dynamics across Six major countries** **November 2024**
  A website for visualization that provides a comprehensive analysis of six counties. [Project link] – as a part of Data Visualization course. Using- D3.js, HTML, CSS, JavaScript
- **Lemme Learn More** **October 2024**
  A platform designed to transform material into engaging formats like Podcasts, BrainROT videos and Flashcards. [Project link] - winner of the sponsor's award at YHack'24, Yale University.
- **Human Activity Recognition Using Long Short-Term Memory (LSTM) Model** **April 2024**
  A LSTM model was employed to learn complex features from raw accelerometer signal (sourced from WISDM Lab) data to differentiate between common human activities. The model achieved a high accuracy of above 96% for both training & validation data – as a part of Advanced Mathematical Statistics course.
- **Fake Logo Detection** **April 2024**
  Detecting Fake logo using machine learning's, Isolation Forest Model. A Flask based web application was developed to receive instant authenticity checks - as a part of Advanced Machine learning course.