HARSHAL KAKAIYA

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SUMMARY

Detail-oriented Data Scientist with hands-on experience in data analysis, machine learning, and statistical modeling gained through internships and diverse projects. Proficient in Python, SQL, Matplotlib, and Seaborn, with a proven ability to develop predictive models and extract meaningful insights from complex datasets.

SKILLS SUMMARY

Data Science: Python, R, Data Visualization, Feature Engineering, Machine Learning, Deep Learning

Mathematics for ML & DL: Linear Algebra, Calculus, Statistics, Probability

Python Packages/Frameworks: Numpy, Pandas, Matplotlib, Seaborn, Scikit-learn, Tensorflow, Keras

Web Development: HTML, CSS, Javascript, Django

Databases: MySQL, MongoDB

Cloud Deployment & Containers: Netlify, Git/Github

Transferable Skills: Critical Thinking, Communication Skills, Teamwork, Problem-solving Abilities

EDUCATION

Master of Data Science Sep. 2024 – Sep 2025 (Exp.)

 ${\it University of Guelph}$

• Current GPA: 4.0/4.0

Bachelors of Engineering in Information Technology

June 2019 – July 2023

Surat, GJ, India

Guelph, ON, Canada

• Cummulative GPA: 3.7/4.0

Sarvajanik College of Engineering & Technology

WORK EXPERIENCE

Machine Learning Intern Jan 2023 – June 2023

Tops Technologies Surat, GJ, India

• Engineered a Cancer Classifier project with the team by leveraging advanced machine learning algorithms to predict cancer types with over 95% accuracy, enhancing the reliability of diagnostic tools for healthcare providers.

- Optimized machine learning pipelines by designing and implementing robust data preprocessing workflows and feature selection strategies, significantly boosting model training efficiency.
- Spearheaded the deployment of machine learning models into production by collaborating with data scientists and software engineers, streamlining processes to enable actionable business insights.
- Interpreted and visualized complex datasets to uncover key patterns, driving improvements in model accuracy, precision, and recall for real-world business and other applications.

PROJECTS

Housing Data Price Prediction | Python, Machine Learning

October 2024

- Executed a detailed machine learning workflow on AMES dataset, including data analysis & preprocessing, to predict house prices.
- Identified Ridge Regression as the top model, achieving a lowest RMSE of 18,407 through effective hyperparameter tuning.
- Analyzed the bias-variance trade-off in Ridge Regression by plotting a U-shaped curve to deepen model performance insights.

Used Car Price Prediction | Python, Data Manipulation, Machine Learning

December 2022

- Built a machine learning model to predict car prices using features such as mileage, fuel type, and year
- Improved model performance through data cleaning, wrangling, and hyperparameter tuning
- Demonstrated expertise in Python for data processing, model development, and evaluation, achieving strong performance metrics

RFM Analysis for Customer Segmentation | Big Data, Python, Data Visualization, Clustering

June 2022

- Segmented business customers based on Recency, Frequency, and Monetary (RFM) criteria to better understand consumer behavior.
- Utilized Python and libraries like Seaborn, Matplotlib, and Squarify to visualize key insights and trends.
- Developed tailored strategies for different customer segments, optimizing business approaches based on data findings.

LEADERSHIP / EXTRACURRICULAR

Student Representative Fall 2024 – Present

Master of Data Science

University of Guelph

- Acted as a liaison between students and faculty, addressing concerns and advocating for program improvements.
- Represented student interests, ensuring their needs were communicated effectively to faculty and administration.
- Promoted academic growth by supporting initiatives that enhanced the learning experience and fostered collaboration.