

Sourabh Nishal k

Data Scientist

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PROFILE

Dynamic Data Analyst with hands-on experience in machine learning, data analysis, Computer vision and AI model development. Proficient in Python, SQL, and advanced visualization tools such as Power BI, Tableau and Excel

SKILLS

Programming Languages — Python, C#

Data Analysis and Visualization — Power BI, Tableau, MS Excel, EDA, Matplotlib, Seaborn.

Database Management — MySQL, MongoDB.

Deep Learning — Computer vision, OpenAI, OpenCV, MediaPipe, OCR, ANN, CNN, RNN, LSTM, Tensorflow and Keras.

Machine Learning — ML algorithms, Natural Language Processing(NLP), SVM, Scikit-Learn, NLTK.

Big Data Technologies — Hadoop, Spark.

Chatbot — Rasa, NLP, dialogflow.

Technical writing, Classification, Regression Analysis, Statistical Analysis.

PROJECTS

Automated Pothole Detection

Using YOLO

- The goal of this project is to develop an AI based model capable of automatically detecting and identifying potholes using Yolov8n.pt, a pretrained model of eight different types of objects.
- Potholes are a major safety hazards on roads, causing damage to vehicles ,leading to accidents, and even posing risks to lives. To improve road maintenance, detecting and reporting potholes in real-time using AI based detection like YOLO is essential. Its an advanced AI framework, excels in detection, segmentation, tracking, classification, and pose detection.

Music recommendation by emotion

using Convolutional Neural Network

- This system detects the user's emotions through methods like facial recognition, text input, and suggests music accordingly. It aims to enhance the user experience by offering emotionally relevant music.

Food class prediction

using Transfer learning-InceptionV3

- Developed a food classification system that reached 92% accuracy in predicting food classes from images, leveraging transfer learning with the pretrained InceptionV3 model to enhance predictive performance.

OCR System

- Developed an OCR system using Tesseract OCR and OpenCV, achieving 90% text extraction accuracy.
- Preprocessed images with thresholding and denoising techniques.
- Incorporated the system into a Flask web application, reducing manual data entry time by 50%

chatbot

(NLP, Rasa, dialogflow)

- Career Chatbot - Developed and deployed a Career Chatbot that assisted over 500 users with career-related guidance.
- Utilized Natural Language Processing (NLP) to achieve 95% accuracy in query handling and deliver personalized recommendations.

- Academic Assist Bot - Created an academic Assist Bot using Rasa to provide detailed course information and guide users with academic-related queries.

Customer segmentation Dashboard in Power BI

- This dashboard enhances customer understanding by categorizing over 10,000 customers into distinct groups based on characteristics, behaviors, and purchase patterns, resulting in a 25% improvement in targeted marketing strategies.

EXPERIENCE

Luminar Technohub
Data Science intern

05/2024 – 11/2024 | Kochi

- **Technical Expertise:** Applied data science techniques for practical applications, including large-scale data analysis, and Carried out machine learning and deep learning algorithms on datasets of 10,000 to 100,000 records.
- **Data Management:** Optimized data management for datasets over 2 million records by efficiently querying databases using SQL and SQL Server
- **Collaborative Teamwork:** Partnered cross-functionally to deliver data-driven insights, enhance decision-making, and achieve a 20% improvement in project efficiency through streamlined collaboration and shared expertise.
- **Knowledge Sharing:**Elevated team proficiency in data science and emerging technologies by disseminating tools, best practices, and insights, boosting capabilities, and achieving a 40% increase in project success rate.

EDUCATION

Big data Analytics & Data science
Luminar Technolab

Kochi

Bachelors Degree
Kannur University

Kannur

CERTIFICATES

Big Data Analytics and Data Science
National Council for Technology and Training(NACTET)

Data Science Professional Certificate by KNIME

Python for Data science and AI - IBM

Data Engineering Foundations Professional Certificate by Astronomer

LANGUAGES

English | Malayalam | Hindi