Name: SOURAV KUMAR DAS

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Objective

Detail-oriented Machine Learning Engineer with a solid foundation in Data Science and Artificial Intelligence (AI). Experienced in developing, training, and deploying machine learning models, with expertise in Python, c programming, and advanced ML techniques. Proficient in data pre-processing, feature engineering, model optimization, and managing end-to-end machine learning pipelines. Skilled in applying supervised and unsupervised learning, deep learning, and reinforcement learning to solve complex real-world problems. Committed to leveraging machine learning to deliver innovative and impactful solutions.

Education

Master of Computer Applications (MCA)
Chandigarh University, Punjab
2023 - 2025
Bachelor of Computer Applications (BCA)
St. Xavier's College, Kolkata
2020 - 2023

Internship

Unified Mentor | Machine Learning Trainee (Internship) April – June 2024
Developed and implemented ML models to solve real-world business problems. Built and managed data pipelines to streamline data collection, pre-processing, and model training. Conducted data analysis and feature engineering to improve model accuracy and performance.

Skills

Programming Languages: Python, C programming
Machine Learning & AI: Data Science, Machine Learning, Deep Learning, NLP, Computer Vision
Data Handling: Big Data, Data Analysis
Software Development: Software Engineering, Web Development
Data Handling: Big Data, Data Analysis, SQL
Tools & Technologies: TensorFlow, scikit-learn, Pandas, NumPy
Methodologies: Agile, Scrum, Model Training, Feature Engineering

Relevant Certifications

Data Analytics – IBM Learning, 2024

Machine Learning Specialist – Coursera Learning, 2023

Deep Learning with TensorFlow – Coursera Learning, 2023

Certified Python Developer – Udemy, 2024

Projects

1. Vehicle Detection Model
Role: Lead Developer
Tools: Python, TensorFlow, OpenCV
• Developed a vehicle detection model using computer vision techniques to identify vehicles in various weather conditions.
• Implemented deep learning algorithms for object detection, achieving high accuracy in different scenarios.
• Managed data collection, pre-processing, and augmentation to enhance model performance.

2. Customer Segmentation Analysis
Role: Data Scientist
Tools: Python, scikit-learn, Pandas, Matplotlib
• Conducted K-means clustering analysis to segment customers based on purchasing behaviour.
• Visualized clusters to identify potential customer groups for targeted marketing strategies.
• Improved model accuracy by tuning hyperparameters and analysing feature importance.

3. Rice Seed Classification Model
Role: Machine Learning Engineer
Tools: Python, YOLO v5, scikit-learn, Pandas, Matplotlib, NumPy
• Developed a model to classify rice seeds into five distinct types: Basmati, Jasmine, Arborio, Red Rice, and Brown Rice, using YOLO v5.
• Pre-processed and cleaned agricultural datasets, ensuring high-quality inputs for training and detection.
• Leveraged YOLO v5 for accurate detection and classification of rice seed varieties based on them morphological features.
• Conducted feature engineering and analysis to identify the key attributes influencing classification performance.
• Achieved high accuracy by optimizing hyperparameters and evaluating the model through cross-validation.

Extracurricular Activities

Hackfest Organizer: Helped organize a Hackfest where I was in charge of selecting questions and overall supervision. Coordinated with various teams to ensure smooth operation and successful execution of the event.

Blood Donation Camps: Actively participated in organizing blood donation camps. Promoted awareness about the importance of blood donation and facilitated the donation process for participants.

Hobbies

- Reading tech blogs, research papers, and books on software engineering and data science
- Traveling and taking solo bike trips to explore new places
- Engaging in multiplayer and role-playing video games