Darshan S

darshanshivalingegowda21@gmail.com linkedin.com/in/darshan-s77b30a255/
github.com/DarshanSGowda03 +353-899711491

SUMMARY

Passionate and motivated AI/ML engineer with a solid foundation in data analysis, machine learning algorithms, and statistical modelling. Eager to apply knowledge in extracting insights from complex datasets and developing intelligent solutions. Seeking an entry-level position to contribute to innovative projects, enhance data-driven decision-making, and continually expand technical skills. Strong problem-solving abilities and a keen interest in leveraging AI to optimize business processes. Excited to collaborate with a dynamic team and contribute to impactful, real-world AI solutions.

EDUCATION

University College Dublin — Dublin, Ireland
Master of Science in Data and computational science — 2025 – Present

Presidency University − CGPA - 8.86/10 — Bengaluru, India
Bachelor of Technology in CSE (Artificial intelligence and Machine Learning) — 2021 – 2025

Oxford Independent PU College − 99.81% — Bengaluru, India
Pre-University Education, 12th — 2019- 2021

Badarikashrama Vidhyashala − 96.96% — Tumakuru, India
Karnataka Secondary Education, 10th — 2009-2019

RELEVANT COURSEWORK

AI & ML: Artificial Intelligence, Machine Learning, Data Science, Tensorflow, Computer Vision

Mathematics for AI: Linear Algebra, Probability & Statistics, Multivariable Calculus, Optimization.
Core CS: Python, C++, Data Structures & Algorithms, Database Management Systems, Computer Networks, Computer Architecture & Organization, Cryptography & Network Security, Cybersecurity, Theory of Computation.

RESEARCH

AI-ML Based Intelligent De-Smoking/De-Hazing Algorithm

- Published peer-reviewed paper and presented at the IEEE International Conference on New Frontiers in Communication, Automation, Management and Security (2025).
- Proposed a CNN-based hybrid AI-ML framework using ResNet-50 for real-time haze and smoke removal, improving image clarity and visibility.
- Achieved 26.59 dB PSNR, 0.8366 SSIM, 0.0332 MAE, and 30 FPS real-time inference speed, outperforming conventional methods (DCP, DehazeNet, CycleGAN).
- Performed dataset preparation, preprocessing, augmentation, and model training with PyTorch, leveraging Adam optimizer and early stopping for efficient convergence.
- Optimized deployment using TensorRT, Flask, and Gradio, enabling real-time applications in autonomous navigation, surveillance, and environmental monitoring.
- Conducted a comparative performance study against state-of-the-art dehazing approaches, proving superior structural similarity, edge retention, and reduced artifacts.
- Suggested future research directions including GAN-based architectures, transformers, domain adaptation, and model pruning for edge device deployment.

Income Tax Fraud Detection Using Machine Learning
(Published in IJCRT (paper-id - IJCRT2501185), Volume 13 Issue 1, January 2025)

- Published peer-reviewed paper proposing a hybrid AI-ML framework for income tax fraud detection.
- Implemented ANN, Random Forest, Logistic Regression, Decision Trees, Naïve Bayes, and Ensemble Models, achieving 92% accuracy, 85% precision, 99% recall, and 95% AUC-ROC.
- Performed data preprocessing, feature engineering, and class imbalance handling to improve model robustness.
- Optimized ANN hyperparameters (layers, batch size, epochs) leading to enhanced generalization and reduced false positives.
- Contributed towards automation of fraud detection systems, enabling cost reduction and better compliance monitoring

PROJECTS

Data-Visualization-and-Analysis-of-AI-ML-Video-Demand-Trends

- Conducted comprehensive data analysis on user engagement and demand for AI/ML-related videos using various visualization tools such as Matplotlib and Seaborn, revealing key trends and consumption patterns.

AI Voice assistant

- Developed an AI-powered voice assistant leveraging LiveKit framework for real-time speech interaction and generative AI responses.
- Implemented speech-to-text, conversational response generation, and real-time streaming to enable seamless human–AI communication.

Other projects include

Anomaly Detection using ARIMA Model , BattleShip AI, Tax Fraud Detection, Fake News Detection, House Price Prediction, Lake future Prediction and more.

CERTIFICATIONS

MatLab for Data Processing and Visualization- (2023)

Introduction to Deep Leaning by Infosys- (2024)

Introduction to Computer Vision by Infosys- (2024)

SKILLS

Technical: Python, SQL, HTML, Java , Machine Learning.
Non-Technical: Leadership, Communication, Teamwork, Creativity, Problem-Solving, Emotional Intelligence