Pragyan Dhungana

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RESEARCH SUMMARY

Undergraduate AI researcher with a focus on healthcare applications. Lead author of EnsembleDx, an ensemble deep learning model for pneumonia detection (99.24% accuracy), published at IEEE ICDSBS 2025. Co-author of an endoscopy-based disease classification paper (98.80% accuracy) using U-Net, published at IEEE ICERCS 2024. Skilled in transfer learning, medical imaging, and explainable AI.

EDUCATION

Jain University | Department of Computer Science Engineering | Bangalore, India
Bachelor's in Computer Science Engineering, CGPA: 8.66/10 | 2021–2025
Relevant Coursework: Machine Learning, Data Engineering, Big Data Technologies, Distributed Systems.
National Examination Board (NEB) | Morang, Nepal
12th Standard, 85% | 2019-2021

ACADEMIC PROJECTS

- **EnsembleDx: Advanced AI for Pneumonia Detection**
  A cutting-edge ensemble deep learning model leveraging DenseNet121, MobileNet, and EfficientNet architectures to deliver high-precision pneumonia diagnosis from chest X-ray images using transfer learning.
- **Urban Taxi Trip Duration Prediction**
  Developed and optimized machine learning models to accurately forecast taxi trip durations, leveraging advanced feature engineering, data preprocessing techniques, and evaluation metrics to enhance prediction reliability.
- **Enhancing Breast Cancer Prediction**
  Conducted a comparative study of Logistic Regression, Random Forest, and KNN to predict breast cancer using the Wisconsin Diagnostic Breast Cancer dataset, optimizing diagnostic accuracy through advanced evaluation metrics.

RESEARCH PUBLICATIONS

1. **Dhungana, P.** *(Lead Author)*
   "Ensemble Deep Learning Approach for Pneumonia Detection Using DenseNet, MobileNet, and EfficientNet with Transfer Learning"
   2025 International Conference on Data Science and Business Systems (ICDSBS), IEEE
   DOI: 10.1109/ICDSBS63635.2025.11031996
   Achieved 99.24% accuracy using an ensemble deep learning model on chest X-ray images.
2. **Dhungana, P.** *(Co-Author)*
   "Deep Neural Networks for Disease Classification from Endoscopic Imaging"
   2024 International Conference on Emerging Research in Computational Science (ICERCS), IEEE
   DOI: 10.1109/ICERCS63125.2024.10895860
   Developed a U-Net-based model for endoscopic disease classification with 98.80% accuracy.

INTERNSHIP

Data Science Intern – *Capabl Elite Techno Groups* | Remote | 1 Month

- Built predictive ML models for taxi trip durations using urban datasets.
- Created data pipelines for large-scale preprocessing and transformation.

AWARDS AND ACHIEVEMENTS

- **100% SII Scholarship**
  Awarded a full Study in India (SII) scholarship worth $14,000 for pursuing a Bachelor's degree at Jain University.

TECHNICAL SKILLS

- **Languages & Libraries:** Python (ML, DL, NLP), NoSQL, ReactJS
- **Cloud Tools:** AWS (EC2, S3, Lambda)
- **Other Interests:** AI for healthcare, academic research, cloud-native development