# Shatrudhan Chaudhary (Satish)

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## PROFILE

Final-year B.Tech student in Computer Science Engineering with applied research experience in AI-based medical image analysis. Skilled in CNN/U-Net architectures and ensemble deep learning, with published work in disease classification from endoscopy and pneumonia detection from CXR. Now seeking to contribute to innovation in cancer imaging and real-time radiotherapy systems, focusing on segmentation, motion tracking, and explainable AI in clinical contexts.

## EDUCATION

- **Jain University School of Engineering and Technology** | B.Tech. in Computer Science Engineering
  - Bangalore, Karnataka | 2021 – 2025 |
  - CGPA: 8.5/10

- **DAV Sushil Kedia Viswa Bharti School** – Class XII (Kathmandu, Nepal)
  - percentage: 89.75%

- **G.S Niketan Higher Secondary School** – Class X (Hetauda, Nepal)
  - percentage: 87.5 %

## SCHOLARSHIPS

- **Study in India (SII) Scholarship**: Awarded by the Government of India (**Ministry of Education**, **2021-2025**) for meritorious international students.

## RESEARCH EXPERIENCE

- **Deep Neural Networks for Disease Classification from Endoscopic Imaging** (Published)
  Presented at IEEE ICERCS'24, Karpagam Academy of Higher Education, India (Dec 2024). Developed a CNN and U-Net based model achieving 98.8% classification accuracy for gastrointestinal diseases using endoscopic images.

- **Co-author –Ensemble Deep Learning for Pneumonia Detection** (Published)
  IEEE ICDSBS 2025. Developed an ensemble model using DenseNet, MobileNet, and EfficientNet to classify pneumonia from chest X-rays. Achieved 99.24% accuracy using transfer learning and model fusion strategies.

## RESEARCH INTERESTS

- Deep Learning for Cancer Imaging (CT, MRI, CBCT)
- AI-Enhanced Radiotherapy Planning and Monitoring
- Medical Image Segmentation and Motion Tracking
- Multimodal Learning and Domain Adaptation
- Explainable AI in Oncology
- 4D Imaging & Real-Time Inference (e.g., Jetson, TFLite)

## TECHNICAL SKILLS

- **Core:** Python, TensorFlow, Keras, PyTorch, OpenCV
- **Medical AI:** CNNs, U-Net, Transfer Learning, Grad-CAM
- **Edge Deployment:** TensorFlow Lite, ONNX, Jetson Nano
- **Research Tools:** Jupyter Notebook, Google Colab, LaTeX, Git
- **Emerging:** Basic understanding of 4D imaging, IGRT systems, Cone Beam CT, multileaf collimator tracking

## PROJECTS

- **Body Pose Recognition** | Mar 2024 | **GitHub**
  Pose detection pipeline using TensorFlow & OpenCV. Concepts transferable to field activity tracking for agricultural labor safety.

- **Global Terrorism Dataset Analysis | GitHub**
  Investigated global terrorism patterns through comprehensive exploratory data analysis (EDA), uncovering key trends and insights for strategic decision-making.

## PUBLICATIONS

- Chaudhary, S. et al. (2024). *Deep Neural Networks for Disease Classification from Endoscopic Imaging*. IEEE ICERCS'24.
  DOI: 10.1109/ICERCS63125.2024.10895860

- Chaudhary, S. et al. (2025). *Ensemble Deep Learning Approach for Pneumonia Detection Using DenseNet, MobileNet, and EfficientNet with Transfer Learning.* IEEE ICDSBS 2025.
  DOI: 10.1109/ICDSBS63635.2025.11031996

## ENGLISH LANGUAGE PROFICIENCY

PTE Academic Score: Overall 69 (Listening: 68, Reading: 69, Speaking: 64, Writing: 70)

## REFERENCES

Dr. Mahesh T.R.
**Head of Department**, Associate Professor,
**Jain University**
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