Priyanka Choudhary

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Education

Indian Institute of Technology Indore *CGPA: 9.36/10*
Ph.D. in Computer Science and Engineering July 2022 – Present

Devi Ahilya Vishwavidyalaya (DAVV), Indore *CGPA: 8/10*
M.Tech. in Computer Science July 2017 – June 2019

Jawaharlal Institute of Technology, Borawan *CGPA: 8.3/10*
B.E. in Computer Science and Engineering July 2013 – June 2017

Publications

Generative Method-based Traffic Sign Detection and Recognition in Occluded Conditions *Jun. 2025*
Vehicular Technology Conference (VTC 2025-Spring)
Authors: **Priyanka Choudhary** and Somnath Dey

FAIERDet: Fuzzy-based Adaptive Image Enhancement for Real-time Traffic Sign Detection and Recognition under Varying Light Conditions *Mar. 2025*
Expert Systems with Applications (under review)
Authors: **Priyanka Choudhary** and Somnath Dey

Automatic Signboard Recognition in Low Quality Night Images *Nov. 2023*
International Conference on Computer Vision and Image Processing (CVIP), IIT Jammu, DOI:10.1007/978-3-031-58174-8_40
Authors: Manas Kagde, **Priyanka Choudhary**, Rishi Joshi and Somnath Dey

Experience

Devi Ahilya Vishwavidyalaya, Indore *Jan.–May 2020*
Visiting Faculty *Indore, India*

- **Subjects**: Computer Architecture and Data Mining
- **Responsibilities**: Curated course and conducted lab sessions

Academic Projects

Real-Time Hand Gesture Recognition using CNN *Aug.–Nov. 2022*
Computer Vision Project (IIT Indore)

- Real-time hand gesture recognition model captures webcam images and classifies the detected gestures in real-time. The training utilized a dataset of American sign language alphabets, spanning from A to Z.
- Additionally, an accuracy comparison was carried out between training from scratch and applying transfer learning on the VGG16 model.

Remote Photoplethysmography (rPPG) for Heart Rate Estimation from Face Video *Aug.–Nov. 2022*
Machine Learning Project (IIT Indore)

- rPPG uses video recordings of a person's face to estimate heart rate by detecting subtle color changes in the skin caused by blood flow.
- The process involves extracting the ROI from video frames and converting them to RGB channels to create time series data. The ICA is then applied to decompose this data into components, from which the pulse signal is identified, and the heart rate is estimated based on frequency.

Technical Skills

- **Programming and Software**: C/C++, Java, Android, Python, MATLAB, LaTeX
- **Frameworks**: PyTorch, OpenCV, TensorFlow

Positions of Responsibility

- **Vice Chair**, IEEE Student Branch, IIT Indore *Mar. 2025 – Present*
- **Organizing Committee and Anchor**, Research Symposium 3.0 (CSE), IIT Indore *Mar. 2025*
- **Web Master**, IEEE Computational Intelligence Society Student Branch, IIT Indore *Jul. 2024 – Present*
- **Member**, Training and Placement Cell CSE at IIT Indore *Jul. 2023 – Present*
- **Organizing Committee and Anchor**,Research Symposium (CSE), IIT Indore *Mar. 2023*
- **Organizing Committee**, Event on Women's Day at Devi Ahilya Vishwavidyalaya, Indore *Mar. 2019*
- **Organizing Committee**, Smart Girl Workshop at Devi Ahilya Vishwavidyalaya, Indore *Aug. 2018*

Achievements

- **UGC-NET-JRF**, qualified in "December 2020 and June 2021 (merged-cycle)" *Feb. 2022*
- **UGC-NET-LS**, qualified *Dec. 2018, Jun. 2019, Jun. 2020*
- **GATE**, qualified *Mar. 2017*
- **Class Representative**, M.Tech. *Jul. 2017 – Jun. 2018*
- **Topper and Medhavi Vidyarthi Award by Chief Minister (MP)**, Higher Secondary *Jun. 2013*

Workshops and Training

- **FDP on Advanced Developments in AI**, *EICT Academy, IIT Roorkee* *23-29 Sep. 2024*
- **Summer School on AI with Focus on CV and ML (Online)**, *IIIT Hyderabad* *01-31 Aug. 2023*
- **Participated in Madhya Pradesh Ph.D. Colloquium 2022**, *AIGGPA, Bhopal* *28-29 Apr. 2022*
- **Workshop on AWS Solution Architect**, *SCSIT and GRRAS Solutions, Indore* *Mar.-Apr. 2019*
- **Training on MATLAB**, *DAVV, Indore (sponsored by RUSA)* *Aug. 2018*
- **Workshop on Algorithm Design and Optimization Techniques**, *DAVV, Indore* *Apr. 2018*