Prathamesh Uravane

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EDUCATION

University of Maryland, College Park — Anticipated Graduation: May 2027
Master of Science in Applied Machine Learning; ***GPA: 4.0/ 4.0*** — College Park, Maryland

Vishwakarma University — May 2024
B.Tech in Artificial Intelligence and Data Science ; ***GPA: 3.75 / 4*** — Pune, India

- Featured in Times of India for Developing real time fall detection system
- AI/ML Core Team Member, Google Developer Student Club

TECHNICAL SKILLS

Machine Learning: Sci-kit Learn, Keras, Tensorflow, PyTorch.HuggingFace,LLMs
DevOps Tools: Git, Azure, AWS, Flask, Docker.
Data Science and Visualization: Numpy, Pandas, Matplotlib, Seaborn.
Programming Languages: Python, MySQL, HTML, PHP.
Other: Deep Learning, Medical Imaging, Image Processing, OpenCV, NLP, Gen AI, Big Data Analytics

PROFESSIONAL EXPERIENCE

AI Engineer | Universidad María Auxiliadora | **Lima, Peru.** — ***April 2024 – June 2025***

- Developed an AI-powered virtual lab simulator integrated with a student feedback system to give insights by analyzing student responses. Increasing student involvement by 34%.
- Built a student's attentiveness Monitoring system for online classes using computer vision technology. It includes face detection, face recognition, and facial landmark analysis. Helped to improve student assessment.

Student Researcher Intern | Energy Research Institute @ NTU | Singapore. — ***January 2024 – March 2024***

- Implemented GAN model to generate realistic road scenarios to enhance robustness of the perception system of autonomous vehicles.

AI Engineer Intern | Yodda Elder Care Technologies Pvt Limited. | Pune, India. — ***July 2023 – December 2023***

- Developed a OpenCV based fall-detection system with 95% accuracy for elderly people using pose estimation and pose-classification classification. Integrated features like alarm triggering and snapshot delivery, enhancing the system's effectiveness during emergencies.

Student Researcher | VU Research Centre of Excellence for Health Informatics | Pune, India. — ***June 2022 – August 2022***

- Developed a CNN model for classifying brain tumors MRI images, achieving 96% accuracy with minimal computational power.

PROJECTS

1. Multi-Model Classification System for Dyslexia Detection Using Handwritten Digit Data.

- Built CNN classifiers to detect dyslexia with 90.52% accuracy using handwritten digit image data with a multi-model approach. This approach helped to boost accuracy. Results are saved for further analysis, enabling robust and reliable detection. This approach supports early diagnosis, for the betterment of affected people. (*TensorFlow / Keras / Machine Learning / Ensemble Learning / Data Preprocessing)*

2. LLM-Meeting-Minutes-Generation. *(Github Link)*

- Implemented an end-to-end LLM pipeline using Google Gemini for transcription and a Llama model via Hugging Face Router to generate clean, shareable meeting minutes automatically. (*Python / HuggingFace / Gradio / ML / Genai / LLM)*

3. LLM-AI-Website-Summarizer. *(Github Link)*

- Built an AI website summarizer that extracts webpage text from a URL and generates concise summaries using an LLM, with support for both OpenAI and local Ollama models. Packaged as an easy-to-run notebook workflow with simple setup and environment-based key management.

PUBLICATIONS

1. IIETA: Efficient Segmentation Approach for the Traceability of Breast Cancer Tissues to Improve Diagnostic Accuracy in Ultrasound Images.

- Advanced preprocessing with multiple segmentation models analyzes breast CT images, enhancing quality and tumor delineation. Dice and IoU evaluations show strong accuracy of 96.73%, enabling early diagnosis and informed treatment planning. (link)

2. IEEE ICCCIT' 2025: Collating Random Forest Classifier and Artificial Neural Networks for the Risk Detection of Maternal Health. (Link)

- Compared ANN and Random Forests models for maternal health risk classification using clinical features; addressed class imbalance via class weights/dropout; Random Forest achieved 85.71% accuracy.

3. Book chapter (IET/Elsevier, 2024): Role of the Big Data in Healthcare System. (Link)

- Healthcare generates massive, diverse, real-time data exceeding traditional systems. Big data enables scalable, cost-efficient integration, storage, and analysis across records, medications, trials, and claims—improving handling.

4. IEEE IC3I '2022: An Efficient Deep Learning based Approach for the Detection of Brain Tumors (Link)

- Developed CNN model for classifying brain tumors MRI images, achieving 96% accuracy with minimal computational power.