Uday Kumar G

uday242004@gmail.com — (+91) 9663487366 — LinkedIn — GitHub — Portfolio

Skills

Languages: Python, C++, C (Basics)
Frameworks & Tools: TensorFlow, Keras, PyTorch, OpenCV, Git, GitHub, Ubuntu, VS Code, Flutter
Core Skills & Machine Learning: Data Structures and Algorithms (DSA), OOPs, Operating Systems (OS), SQL, Computer Networks, Regression, Classification, Clustering

Experience

Unisys Jul 2024 – Aug 2024
Summer Intern (Hybrid)

- Developed a fully automated Power BI reporting pipeline using Python, Selenium, and WebDriver, eliminating the need for daily manual report generation.
- Built an end-to-end automation script that refreshes dashboards, navigates the portal, and downloads updated reports without human intervention.
- Cut manual reporting workload by 70%, saving 5+ hours per week, and delivered the end-to-end automation system 15 days earlier than planned.
- **Tech:** Python, Selenium, WebDriver, Power BI

Education

B.E. in Artificial Intelligence and Machine Learning, Ramaiah Institute of Technology CGPA: 8.92
Dec 2022 – Present (Expected Graduation: 2026)

Projects

VisuWeave — Python, Speech-to-Text (ASR), NLP, OpenCV, GANs, Reinforcement Learning

- Designed and developed VisuWeave, an AI-driven system for real-time visualization that transforms speech into dynamic visuals with an end-to-end latency of under 2 seconds.
- Integrated speech-to-text and NLP modules with a multi-priority backend pipeline, enabling rapid visual retrieval and generation through database search, web scraping, AI image synthesis, and code-based animation.
- Implemented a motion-graph-based visualization engine producing smooth scene transitions at ∼25 FPS, increasing visual responsiveness and user engagement. **GitHub Repo**

EcoVista — Python, OpenCV, YOLOv8, ML, Face Recognition, Android Development, IoT-enabled hardware

- Developed a multi-technology AI waste management system integrating ML, computer vision, IoT hardware, and Android development to automate 4-way waste segregation and litter detection.
- Built a YOLOv8-based model for real-time waste classification with 92% accuracy, integrated into a custom hardware mechanism; implemented a CCTV-based litter detection module using face recognition to identify and log violations.
- Created a dual-role Android app enabling users to earn rewards for proper disposal while allowing admins to remotely monitor bin status, view analytics dashboards. **GitHub Repo**

Achievements, Patent & Publications

- **Patent:** Indian Patent (2024) – Co-inventor of "Enhanced Solution for Garbage Collection and Segregation Using Computer Vision and IoT." Patent Application No. 202441050632.
- **Publication:** Springer Publication (ICTIS 2025) – Co-author of "Forecasting Future Water Requirements and Assessing Storage Capacities in Reservoirs." Published in Springer Conference Proceedings.
- 1st Runner-up at Unisys Innovation Program Year-15 (2024) and Finalist at Unisys Innovation Program Year-16 (2025).
- Secured 1st place in two 24+ hour hackathons — Protatva (RVIT&M) and amBITthon (BIT), 2024.