Ashish Mishra

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Github · LinkedIn

Work Experience

Siemens Energy Bengaluru, India
Application Developer *May 2026 - July 2026*

- Built an automation pipeline using Python, SQL and Azure Logic Apps that replaced a recurring manual data reprocessing workflow, saving approximately 240 engineer-hours per month.
- Designed the SQL state schema and orchestration logic handling batch sequencing, failure detection and automated reporting across the full run.
- Presented the solution to the engineering team and senior leadership, securing approval and progression to the quality testing phase for production rollout.
- Supported the quality testing rollout by documenting the schema, configuration and environment setup required to deploy the pipeline across development and quality environments.

Projects

NightCompass | *Python, PyTorch, YOLOv8, OpenCV, FastAPI* Link

- Night-time obstacle detection system for blind pedestrians, running separately trained thermal and RGB YOLOv8 detectors.
- Fine-tuned on 10,700+ FLIR thermal frames across 9 classes, reaching 0.77 mAP50 on pedestrians in validation and holding at 0.73 on a held-out test set of 3,749 frames.
- Benchmarked thermal against RGB per class, showing thermal leads on pedestrians (0.73 vs. 0.44 mAP50) at $\sim$2 ms inference per frame, and served both models through a FastAPI backend with live video streaming.

Find Your Next Obsession | *Python, Pandas, Scikit-learn, FastAPI* Link

- Video game recommender applying TF-IDF and cosine similarity over a 50,000 game Steam catalogue, ranking results by a weighted tag score combined with a popularity signal.
- Built the input layer with RapidFuzz fuzzy matching and alias normalisation so partial or informal titles resolve correctly, and mapped user mood to dataset tags for the preference vector.
- Evolved the system from a rule-based CLI to a TF-IDF model served through a FastAPI backend with a Jinja2 frontend, deployed on cloud.

Cricket Shot Classifier | *Python, TensorFlow, MobileNetV2, FastAPI* Link

- Image classifier identifying four batting shots via two-phase MobileNetV2 transfer learning, reaching 94.21% test accuracy.
- Trained on 4,723 images with in-graph augmentation, lifting validation accuracy from 83% to 95% by fine-tuning the top 30% of the base network.
- Evaluated per-class performance through a confusion matrix to isolate the shot pairs the model most often confused, and served the model with a FastAPI backend and responsive web UI.

Education

Vellore Institute of Technology Vellore, Tamil Nadu
Bachelor of Technology *CGPA: 7.57* *2024 - Present*

D. A. V. Public School, Kansbahal Kansbahal, Odisha
92% in Class XII · *98.4% in Class X* *2017 - 2024*

Technical Skills

Programming: C++, Python, Java, JavaScript
AI/ML: TensorFlow, PyTorch, OpenCV, Pandas, NumPy
Backend: Node.js, Express.js, Django, FastAPI
Database: MySQL, MongoDB
Frontend: HTML, CSS, React.js
Tools: Git, Linux
Certifications: Deep Learning Specialization and Machine Learning (Andrew Ng), IELTS Band 8.5