Plawang Shishu

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Professional Summary

Results-driven AI and Robotics engineer with expertise in deep learning, computer vision, and embedded systems. Adept at developing and optimizing AI models, robotic applications, and real-time vision systems. Passionate about innovation, research, and leveraging AI for real-world impact.

Education

Indian Institute of Information Technology, Nagpur
B.Tech in Electronics and Communication Engineering (IoT Specialization)   2022 – 2026

Core Competencies

- **Programming Languages**: Python, C++, MATLAB

- **AI & Machine Learning**: Deep Learning, TensorFlow, PyTorch, Scikit-learn, OpenCV, NLP, Transformers

- **Embedded Systems**: ARM Cortex, Qualcomm Snapdragon, TI MSP430, IoT Edge AI

- **Robotics**: ROS, Gazebo, SLAM, Path Planning, Computer Vision for Robotics

- **Web Development**: Full-stack (Spring Boot, React, Node.js, PostgreSQL, REST APIs)

- **Algorithm Optimization**: Real-time AI deployment, Edge AI, System Performance Enhancement

Projects & Research

Grayscale-to-Color Image Processing Using Deep Learning ○

- Developed a deep learning model to colorize grayscale images using convolutional networks.

- Trained on 50,000+ image datasets, optimizing accuracy and color distribution.

- Implemented TensorFlow, OpenCV, and PyTorch for feature extraction and augmentation.

CMOS-Based Charge Pump Phase-Locked Loop (CPPLL) Design ○

- Designed and simulated a low-power CMOS circuit for high-precision frequency synthesis.

- Developed a robust netlist and optimized layout for enhanced performance and efficiency.

- Reduced power consumption by 20% using efficient circuit topology.

Digital Image Processing for Optical Distortion Correction ○

- Created AI-driven algorithms to correct refractive distortions in submerged object images.

- Implemented convolution-based feature extraction for enhanced visual clarity.

- Focused on real-time processing and accuracy improvements for industrial applications.

Certifications & Training

- **Deep Learning Specialization (Coursera)** ○
- **MATLAB for Engineers (MathWorks)** ○
- **Digital Image Processing (Udacity)** ○
- **ROS for Robotics Applications (The Construct)** ○
- **Computer Vision with OpenCV & TensorFlow (Udacity)** ○
- **Embedded Systems & Robotics with ARM Cortex (ARM University)** ○
- **AI for Edge Computing (NVIDIA DLI)** ○