# 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** GitHub

- 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** GitHub

- 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** GitHub

- 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

- **MATLAB for Engineers (MathWorks)** [Certificate]
- **Digital Image Processing (Udacity)** [Certificate]
- **ROS for Robotics Applications (The Construct)** [Certificate]
- **Computer Vision with OpenCV & TensorFlow (Udacity)** [Certificate]
- **Embedded Systems & Robotics with ARM Cortex (ARM University)** [Certificate]
- **AI Principles with Edge Computing** [Certificate]