

# PASUPULETI CHARAN KUMAR

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## OBJECTIVE

Motivated AI/ML Developer skilled in Python, Deep Learning, and Web Development, seeking to build real-world intelligent systems and contribute to scalable, user-focused AI applications.

## EDUCATION

KALASALINGAM ACADEMY OF RESEARCH AND EDUCATION, [Krishnan Koil, T.N]  
Bachelor of Technology in Computer Science and Engineering Sep 2022 – April 2026  
Narayana Junior College [Kadapa, AP]  
Intermediate in MPC Stream June. 2020 – May  
2022

## TECHNICAL SKILLS

- Programming Languages:** Python, Java
- Machine Learning & AI:** Deep Learning, Machine Learning, PyTorch, TensorFlow
- Web Development:** HTML, CSS, JavaScript
- Areas of Interest:** AI agents, Deep Learning, Machine Learning, Programming
- Soft Skills:** Communication
- Languages:** English, Telugu

## EXPERIENCE

**Research Intern (NITK Surathkal) May 2025 – Present**

- Developed XAI-based interpretation models for ML classification tasks.
- Applied LIME, SHAP, feature attribution, and model interpretability techniques.
- Analyzed model decision behavior and visualized feature contributions.
- Conducted interpretability comparisons across multiple ML models.
- Contributed to research documentation and experimental result reporting.

## PROJECTS

**AI Meeting Assistant (Python, Whisper, RAG, Google Calendar Integration)**  
Built a real-time AI assistant for automated transcription, summarization, contextual Q&A, and event scheduling. Integrated Slack and Google Calendar to automate workflows.

**Live Video Transcriber (Python, OpenCV, Google STT)**  
Built real-time speech transcription over webcam feed with multithreading to reduce latency and improve user readability.

**AI NewsReel Generator**  
Scrapes trending news, summarizes content, generates narration, and produces downloadable video reels with subtitles.

**Movie Ticket Booking System**  
Python-based ticket booking interface with seat selection and confirmation workflow.

## PUBLICATION

Development of an Energy Prediction Model for Home Appliances Using Random Forest Algorithm – IEEE INDICON 2025, NIT Rourkela.

Achieved 97.8%  $R^2$  and 98.8% accuracy using Random Forest.

Compared with LSTM and Gradient Boosting models.

Focused on Smart Home Energy Optimization & Sustainability (SDG 7 & 13).

## POSITION OF RESPONSIBILITY

**Project Lead – Real-Time Video Transcriber**  
*Self-Initiated Technical Project*

- Led development of a real-time video transcription system using Python and OpenCV.
- Integrated live speech-to-text with caption overlays and multithreading.
- Implemented UI and optimized for error resilience and user feedback loops.

## ACHIEVEMENTS

**Top 50 Team** - IIT Madras Shaastra Hackathon (2025)

**Finalist** - Kalasalingam ACM Hackathon (2025)