# ASHVIN MANOJ

# PG STUDENT

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#### **CAREER OBJECTIVES**

A results-oriented AI/ML Engineer with a strong foundation in deep learning, NLP, and computer vision. Eager to leverage hands-on experience in developing and deploying scalable machine learning solutions to solve complex business problems and drive innovation.

#### **TECHNICAL SKILLS**

Languages & Databases: Python, C++, C, SQL, R

AI/ML Frameworks: TensorFlow, PyTorch, Scikit-learn, Transformers, Pandas, NumPy

Tools & Platforms: ROS, Arduino, Git, Streamlit, Flask, MATLAB, Linux

#### **EDUCATION**

MTech in Computer Science and Engineering(AI/ML) I Rajagiri School of Engineering and Technology

CGPA - 9.29 (Aug 2024 - Present)

BTech (Honours) in Robotics and Automation | Adi Shankara Institute of Engineering and Technology

CGPA - 9.54 (Oct 2020 - Jun 2024)

Higher Secondary (12th) - Computer/ Maths | St. Mary's Public School, Thamarachal

Percentage: 92.6% (2020)

#### **PROFESSIONAL EXPERIENCE**

## **Hardware Systems Intern, Sunlux Technovations**

Feb 2024 - April 2024

Developed and debugged microprocessor programs in Assembly for industrial automation systems, contributing to a 15% improvement in process efficiency. Collaborated with a team of engineers to design and implement real-world embedded solutions for clients in the manufacturing sector.

## **PROJECTS**

# **Multilingual News Audio Translator**

Developed a full-stack audio translation app using Wav2Vec 2.0 for speech recognition (92% accuracy) and an mBART model, fine-tuned with reinforcement learning for fluent translation.

# **PDF Query Application**

Developed a scalable, voice-enabled PDF query system using NLP and Streamlit, transforming static documents into conversational hubs and reducing information retrieval time by over 89%.

#### **Automatic Weed Detection and Spraying Robot**

Revolutionizing precision agriculture with an Al-powered weed detection robot using ROS and a custom hybrid EfficientNetV2 - Transformer models (97% Accuracy) for an eco-friendly herbicide application.

#### **PUBLICATIONS**

 Sreedeep Krishnan, M. Karuppasamy Pandyan, Ashvin Manoj. A Hybrid Transformer Model for Precision Weed Detection. Presented at IEEE ACCESS '25, Adi Shankara Institute of Engineering & Technology, June 2025.

#### **ADDITIONAL INFORMATION**

- **Certifications:** NPTEL (Python & DSA), Infosys (Prompt Engineering), Coursera (Google Data Analytics, Intro to GenAl, GenAl for UX Designers)
- Soft Skills: Communication, Critical and Creative Thinking, Time Management
- Languages: English, Malayalam, Tamil, Hindi.