

ESHA J A IYER

Bengaluru, Karnataka

☎ +91-9945829461

✉ eshaiyer1511@gmail.com

🌐 [esha-j-a-iyer](https://www.linkedin.com/in/esha-j-a-iyer)

🔗 [eshaiyer](https://github.com/eshaiyer)

EDUCATION

National Institute of Technology, Karnataka, Surathkal
BTech in Electronics and Communication Engineering - 5.48

11/2022 – 04/2026
Mangaluru, India

EXPERIENCE

Prodot Design Intern @ SNBotics Research Pvt Ltd

05/2024 – Present

- Working with the product design team to build advanced autonomous navigation engines to motion control devices.

PROJECTS

Voice Controlled Automation System | Arduino IDE, Embedded C, TensorFlow, TinyML

01/2024

- A simple subsystem which uses **machine learning and Arduino integrated digital circuit to respond to voice commands.**
- This project aims at integrating **embedded systems and digital electronics with machine learning.**

Auto-Encoded Image Transfer | Python, PyTorch, Socket Programming

10/2023

- A system to facilitate encrypted file transfer using **auto-encoders through a supervised neural networking model.**
- This project aims at designing a system **to reduce pixel loss and increase security.**

AI Model to assess the health of Power Grid Transmission Towers | PyTorch, PyCharm

09/2023

- Designed an **AI model to assess the structural health of power grid transmission towers and predict maintenance needs.**
- This AI model uses data from a variety of sources, including **visual inspections, sensor data and weather conditions..**

TECHNICAL SKILLS

Languages: Python, C, C++, JavaScript, SQL, Embedded C

Developer Tools: VS Code, Android Studio, Arduino IDE, Keil MicroVision, Xilinx Vivado, Jupyter, GitHub

Technologies/Frameworks: NodeJS, PyTorch, Tensorflow, Gazebo, ROS, Moveit

ACHIEVEMENTS

Hacktoberfest 2023

10/2023

- Completed Hacktoberfest 2023 conducted by MLH and Digital Ocean **by making multiple pull requests in various open source projects in the month of October, 2023.**

Participant - E-Yantra Robotics Competition 2023-2024

08/2023

- Participant of E-Yantra Robotics Competition 2023-2024 conducted by IIT Bombay..
- Worked on the assigned theme of **Holyglyph Bots** where we had to **tinker with multiple bots to design geoglyphs.**

EXTRACURRICULAR

The Institution of Engineers , NITK Chapter

01/2023 – Present

Joint Secretary

Mangaluru

- Executive member of **Robotics and Code Teams.**
- Involved in the organisation of **multiple technical events and workshops.**

TedXNITKSurathkal

01/2024 – Present

Web Developer

Mangaluru

- Member of **the website team.**
- Contributed to the **TedXV10 official website and the themed game.**