

# Madhusudhan J S

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## EDUCATION

### BMS Institute of Technology and Management

Feb 2023– Jun 2025

Bachelor of Engineering in Computer Science and Engineering, CGPA: 7.6

## EXPERIENCE

### Full Stack: Marque Magic (intern)

Jan 2025 -Apr 2025

- **Frontend Development:** Created dynamic UIs using HTML, Tailwind CSS, and JavaScript frameworks, ensuring pixel-perfect design and full responsiveness across all screen sizes.
- **Backend Engineering:** Built and maintained secure, scalable APIs from scratch using modern backend frameworks. Integrated PostgreSQL for structured data management.

## SKILLS

- Java
- C
- SQL
- API
- Python
- Bootstrap
- Web Development
- GitHub
- FastAPI

## PROJECTS

### App Clone(intership)

Jan 2025 – Apr 2025

- Developed a fully responsive multi-page web application replicating AppHelix.ai using HTML, Tailwind CSS, and JavaScript, ensuring mobile-first design and optimized layout.
- Designed and implemented essential pages including About Us, Services, Careers, Partnerships, Blogs, and Contact with consistent UI components and smooth user navigation.
- Built a modular frontend architecture with reusable code blocks for navigation bars, footers, and content sections to maintain clean and scalable code.

### Netwrok Dection system

Jan 2025 – Apr 2025

- Machine Learning Models: The system uses Random Forest (RF), LightGBM (LGB), and XGBoost (XGB) models to classify network attacks. Pre-trained models like attack\_lgb.pkl, rf\_attack.pkl, and xgb\_label.pkl are employed for prediction.
- Explainable AI (XAI): Integrated XAI techniques to explain model predictions, offering insights into why certain classifications were made, ensuring transparency in network security decision-making.
- Flask Web Application: A Flask web app (application.py) serves as the interface, providing users with a platform to interact with the models, view detection results, and explore visualizations of the attack predictions.
- Data Visualizations: The system generates insightful visualizations (stored in static/\*.png), helping in the analysis of the dataset and understanding the model outputs, assisting users in making informed security decisions.

### Sign Language Conversion

Apr 2024 –Dec 2024

- Developed a real-time sign language recognition application using Python, OpenCV, and TensorFlow.
- Enabled gesture-to-text and text-to-gesture translation, improving accessibility for individuals with hearing impairments.
- Integrated machine learning models for gesture recognition and realtime translation.
- Utilized OpenCV for image processing and TensorFlow for training neural network models to recognize signs.

### Employee-Leave-Mangement-System

Jan 2023 – Apr 2023

- Developed a full-stack Employee Leave Management System using PHP, MySQL, HTML, and Tailwind CSS to streamline leave tracking for organizations.
- Implemented secure user authentication with role-based access for employees and administrators.
- Designed intuitive dashboards allowing employees to apply for leave and view status, while enabling admins to manage requests, approve/reject leaves, and configure policies.

## CERTIFICATIONS

- [Emberquest internship](#)

Nov2023

- [Hands on Robotics with Ros](#)

June 2023

- Currently learning **Java Core** and **Full Stack Web Development** including HTML, CSS, JavaScript, Node.js, and MongoDB.