ABINU ALFRED

Tech Lead | Robotics & AI Enthusiast | Data Science & Cybersecurity Aspirant

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PROFESSIONAL SUMMARY

Innovative and meticulous BTech student specializing in Robotics and AI at RIT Kottayam. Passionate about data science, cybersecurity, and web development. Experienced in building smart systems, automation projects, and competitive tech events. Seeking opportunities to apply my technical skills in AI, robotics, and cybersecurity to real-world challenges.

EDUCATION

Rajiv Gandhi Institute of Technology, Kottayam

Bachelor of Technology in Robotics & Artificial Intelligence | 2028

TECHNICAL SKILLS

- Programming: Python, JavaScript, SQL, C++

- Web Development: HTML, CSS, JavaScript, Flask, React

- AI & Data Science: Machine Learning, Data Analysis, Pandas, NumPy

- Robotics & IoT: Arduino, ESP32, ESP8266, Sensors, Actuators

- Cybersecurity: Ethical Hacking, Network Security Basics

- Tools & Platforms: Git, MySQL, Firebase, MATLAB, ROS

EXPERIENCE & PROJECTS

- Smart Bus Safety System: Developed a safety mechanism using a load cell, servo motor, and Arduino to prevent bus doors from closing if someone is standing on the step.

- Traffic Detection System (Flask-Based): Enhanced a traffic monitoring system to count vehicles, detect their speed and color, and store data in a database for analysis.

- Smart Environmental Monitor (Mackthon 2025 Project): Designed an IoT-based air quality monitor using ESP and various sensors, with real-time dashboard integration.

- Womens Health Website (Hackathon Project): Built a web application offering menstrual cycle tracking, pregnancy chance estimation, and symptom-based health recommendations.

- Wireless-Controlled Bot (IEEE Event at CUSAT): Developed and programmed a bot using ESP32, motor drivers, and Arduino IDE for wireless control.

LEADERSHIP & COMMUNITY INVOLVEMENT

- Tech Lead Mechatronics Society, ISTE EXECOM 25-26

- ISTE Member Active participant in workshops, technical fests, and hackathons

- IEEE Event Participant Competed in multiple robotics and AI-related events

- NSS Leader Attended leadership camp at Vidya College, Thrissur

CERTIFICATIONS & WORKSHOPS

- Generative AI Workshop ISTE RIT Kottayam

- Cybersecurity Fundamentals [Issuing Organization]

- Machine Learning Basics [Issuing Organization]

- Advanced Arduino & IoT [Issuing Organization]

SOFT SKILLS

- Leadership & Teamwork

- Problem-Solving

- Attention to Detail

- Public Speaking & Teaching

- Creativity & Innovation

INTERESTS & HOBBIES

- Web Design & Development

- Robotics & Automation

- Video Editing

- Ethical Hacking

- Teaching & Knowledge Sharing

References available upon request.