NANDHINI R

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Location: Tamilnadu, India LinkedIn Github

SUMMARY

Innovative B.Tech student in Information Technology with a focus on AI, machine learning, and intelligent automation. Known for combining real-world problem-solving with practical coding and hardware skills. Experienced in building systems that respond to human behavior, analyze data visually, and operate in real-time. Comfortable working with Python, sensors, and data tools to create meaningful solutions. Always exploring new ways to apply technology with purpose and clarity

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EDUCATION

Bachelor of Technology (B.Tech) in Information Technology 2021-2025

Anna University, Trichy, India

CGPA: 7.65/10

Relevant Coursework:

- Data Structures
- AI & ML
- Cloud Computing
- Data Visualization

RESEARCH EXPERIENCE

1. AI-Powered Health Monitoring System 2025

This project demonstrates an AI-powered real-time health monitoring system using a hybrid approach for efficient data processing, storage, and alerts. Machine learning models (Random Forest and Neural Networks) accurately classify patient risks and detect anomalies. Edge computing ensures fast local processing, while Firebase cloud storage enables scalability. A Flask interface and Twilio alerts provide real-time notifications to caregivers. Tested under simulated conditions, the system proved accurate and reliable.

- Developed a real-time health monitoring solution using Random Forest and ANN models.
- Classifies patients into risk levels based on live data such as heart rate and glucose.
- Integrated Firebase and SQLite for hybrid cloud + local storage.

Research Focus Summary:

My research experience bridges AI-driven decision systems and health monitoring, with focus areas in:

- Data preprocessing and interpretation
- Machine learning and model building
- Sensor integration and real-time inference
- Data visualization for behavior analysis

PRESENTATIONS & WORKSHOPS

- Applications of Artificial Intelligence and Machine Learning – Speaker, National Tech Symposium (2024).

- Participant – IEEE Workshop on Next-Gen IoT and AI Integration, 2023.

TECHNICAL SKILLS

Languages: Python, C, JavaScript, SQL

Data Science Tools: Excel, Matplotlib, Tableau, Google Analytics, MATLAB

Machine Learning: Scikit-learn, TensorFlow, PyTorch, PyMongo, Seaborn

Databases: Firebase, MySQL, SQLite, MongoDB, NoSQL

Cloud: Google cloud, IBM cloud

PROJECT HIGHLIGHT

Smart Motion-Based Light Automation & Analytics System 2022

This was my **first hands-on project**, developed with the support of my lecturer to **spark my journey into programming**

- Built with Arduino + Python, it turns lights ON/OFF by detecting people using IR/PIR sensors.

- Logged motion data into CSV using Python and visualized activity throughout the day.

- Used Matplotlib to analyze usage trends and optimize light timing

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VOLUNTEERING

- **Conference Organizer & Speaker** –Futuristic AI/ML Technologie, Conducted a knowledge-sharing session for juniors on upcoming trends in

AI/ML such as generative AI, autonomous systems, ethical AI, and real-world applications. Helped over 50+ students understand practical use cases and future job scopes.

- **TechFest 2024 – Event Coordinator,** Managed student registrations, UI coordination, and communication between student teams and faculty for a college-wide technology event.

LANGUAGES

English (Fluent), Tamil (Native), Telugu(Medium), Hindi (Basic)