#### **SANJAY M**

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Location: Tirunelveli, Tamil Nadu, India

# **OBJECTIVE**

To work in a challenging and innovative environment that encourages continuous learning, growth, and opportunities to contribute towards the organization's success while expanding my technical and leadership abilities.

### **EDUCATION**

### B.Tech – Artificial Intelligence and Data Science

Sri Krishna College of Engineering and Technology, Coimbatore CGPA: 7.9 (as of Nov 2024)

# **HSC (Higher Secondary Certificate)**

Rose Mary Matriculation Higher Secondary School, Palayamkottai

First Year: 85% | Second Year: 85.6%

### **TECHNICAL SKILLS**

- Languages: C++, Python, Java, SQL, HTML, MongoDB
- Frameworks & Libraries: Flask, React JS, React Native, OpenCV, TensorFlow, Keras
- Databases: MySQL, MongoDB
- Tools & Platforms: Tableau, Twilio, Git, VS Code, Google Colab
- Concepts: Machine Learning, Deep Learning, Data Visualization, Full Stack Web Development, API Integration

#### **INTERNSHIP EXPERIENCE**

## **Machine Learning Intern**

**Prodigy Infotech** – *Remote* | *Jan 2024* – *Feb 2024* 

- Built ML models for classification and regression using Python, Scikit-learn, and Pandas.
- Achieved 92%+ accuracy through data preprocessing, feature engineering, and hyperparameter tuning.
- Delivered weekly reports and collaborated in code reviews.

### **Machine Learning Intern**

**TechnoHacks Edutech** – *Remote* | *Dec 2023 – Jan 2024* 

- Developed House Price Prediction and Wine Quality Classification models.
- Applied EDA, model validation techniques, and used tools like NumPy, Pandas, and Scikit-learn
- Gained practical experience in end-to-end ML workflow and result interpretation.

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### **PROJECTS**

#### 1. AI-IoT Based Smart Stick for the Visually Impaired

- Designed a smart stick using ultrasonic sensors and Python for real-time obstacle detection and navigation assistance.
- Features include distance-based alerts and emergency SMS using GSM modules.

# 2. Apple Tree Health Monitoring Using Drone System

- Implemented a CNN-based model with thermal and HD camera inputs to identify diseases like black spots and white powder.
- Utilized Inception Network and K-means clustering for better feature extraction and segmentation.

• Integrated YOLOv7 for disease detection and Random Forest for pesticide recommendation

# 3. Deepfake Image Detection System

- Developed a web app using Flask and React to detect manipulated images using the Xception deep learning model.
- Focused on identifying facial artifacts and inconsistencies in tampered media.

### 4. Natural Disaster Prediction & Alert App

- Built a mobile application using React Native and Flask backend with Twilio for SMS alerts and OpenWeatherMap API for real-time weather data.
- Features: disaster guidelines, offline SOS, local language support, historical data analysis, rescue request submission, and disaster community support.

#### 5. SQL-Based Data Management System

- Designed a secure Flask-based backend with MySQL and MongoDB integrations, supporting CRUD operations, login authentication, and user tracking.
- Inspired by tools like create-react-app, this tool scaffolded Flask projects with custom credential and database setup options.

# 6. Agriculture-AI Assistant

- Built a multi-functional platform for farmers that included crop recommendation using Random Forest and pesticide detection using MobileNetV2 with the PlantVillage dataset.
- Utilized MongoDB for storing farmer logs and integrated support for multilingual access.

# **CERTIFICATIONS**

#### • Coursera:

- o Fundamentals of Data Visualization with Tableau
- o Introduction to Artificial Intelligence

#### • Cisco:

o Introduction to Cyber Security

# • Infosys Springboard:

- MySQL as Datastore
- o Database and SQL
- Clustering using Python
- o Artificial Intelligence Foundation
- Java SE Features
- HTML and C++ Fundamentals

### **HACKATHONS & SYMPOSIUMS**

- Winner Paper Presentation, National Engineering College, Kovilpatti
- Winner Ideathon, National Engineering College, Kovilpatti
- Finalist Innovateathon, Rathinam College, Coimbatore
- Participant Webathon, M.H. Saboo Siddik College of Engineering, Mumbai
- Participant Hack Era, Sanjay Ghodawat University, Maharashtra

- Participant Aarush, SRM IST, Chennai
- Participant Tect Tatva-M#, Manipal Institute of Technology

# **WORKSHOPS & PRACTICAL TRAINING**

- "Smuggle the Cake" Anna University, Coimbatore
- "Coding Contest" Coimbatore Institute of Technology
- "Paper Presentations" Karpagam Institute, JCT College
- "IoT using Python and Raspberry Pi" IIT Madras
- "5G Network Seminar" Karpagam Institute of Technology
- "Full Stack Web Development" ELSYIUM Academy

(SANJAY M)