#### **SANJAY M**

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# **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 Apr 2025)

#### **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, Spring Boot
- 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**

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

#### **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**

Alfido Tech – Remote | May 2025 – Present

- Gaining hands-on experience by working on real-world datasets and supervised learning tasks
- Built classification and regression models using datasets like Iris, Boston Housing, and Titanic
- Applied algorithms like logistic regression, decision trees, and linear regression

#### **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:

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

#### Cisco:

• Introduction to Cyber Security

# **Infosys Springboard:**

- MySQL as Datastore
- Database and SQL
- Clustering using Python
- Java SE Features
- HTML and C++ Fundamentals
- Introduction to NLP, Deep Learning, and Data Science
- Artificial Intelligence Foundation Certification
- Java Foundation Certification
- OpenAI Generative Pre-trained Transformer 3 (GPT-3) for Developers
- Spring Data JPA with Boot
- React Web Developer Certification
- Deep Learning for Developers
- Sunbird ED Microservices Foundation Certification

# ICT:

• Introduction to MongoDB, AI, and Vector Search – ICT Academy Learnathon

# **AWS**:

- AWS Cloud Practitioner Essentials
- AWS Cloud Quest: Cloud Practitioner

# **Google Cloud Platform (GCP):**

- Implement Load Balancing on Compute Engine (Earned Apr 16, 2025)
- Prepare Data for ML APIs on Google Cloud (Earned Apr 16, 2025)
- Set Up an App Dev Environment on Google Cloud (Earned Apr 16, 2025)

- Build a Secure Google Cloud Network (Earned Apr 15, 2025)
- Google Cloud Computing Foundations: Data, ML, and AI in Google Cloud (Earned Mar 2, 2025)
- Google Cloud Computing Foundations: Networking & Security in Google Cloud (Earned Feb 28, 2025)
- Google Cloud Computing Foundations: Infrastructure in Google Cloud (Earned Feb 28, 2025)
- Google Cloud Computing Foundations: Cloud Computing Fundamentals (Earned Feb 26, 2025)

# **Microsoft Azure:**

• Microsoft Azure Fundamentals Certification

# **HACKATHONS & SYMPOSIUMS**

- Winner Paper Presentation & Ideathon, National Engineering College, Kovilpatti
- **6** Finalist Innovateathon Rathinam College, Aarush SRM IST, TectTatva-M# MIT
- Participant Webathon, M.H. Saboo Siddik College of Engineering, Mumbai
- Participant Hack Era, Sanjay Ghodawat University, Maharashtra

# **WORKSHOPS & PRACTICAL TRAINING**

- "IoT using Python and Raspberry Pi" IIT Madras
- "Full Stack Web Development" ELSYIUM Academy

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