

Sushma H P

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OBJECTIVE

To contribute to innovative automotive software solutions using my expertise in C++, Python, and application development. I am passionate about developing reliable, safety-critical software for connected and autonomous driving technologies within a global innovation ecosystem.

EDUCATION

B.M.S. College of Engineering, Bangalore.

Master of Technology (M. Tech) in Computer Network Engineering (ISE Branch - CGPA: 9.2)

Feb 2023 – Feb 2025

Jawaharlal Nehru National College of Engineering, Shivamogga.

Bachelor of Engineering (B.E) in Information Science and Engineering (ISE Branch – CGPA: 7.2)

Aug 2018 – July 2022

SKILLS SUMMARY

- **Programming Languages:** Python, C, C++, PHP.
- **Networking & OS:** UDP/TCP, OSI Layers, VLAN's, 3-way Handshake, Windows Server, Linux (Ubuntu, CentOS).
- **Web Development:** HTML, CSS, Basics of JavaScript.
- **IoT & Embedded Systems:** NodeMCU, Sensor Integration, Arduino (Basic), MQTT(Basic).
- **ML/AI & Data:** Machine Learning, Deep Learning, Natural Language Processing, Data Analysis, Data Visualization.
- **Tools & Platforms:** Power BI, PyCharm, Jupyter Notebook, Visual Studio Code, Eclipse, Notepad++, Arduino IDE, Android Studio, R Studio, Virtual Box.
- **Security & Blockchain:** Cryptography, OpenSSL, Ethereum, Ganache, Remix IDE, MetaMask.
- **AI Assistants:** ChatGPT, Phind, Gemini, Bard.
- **Soft Skills:** Strong problem-solving, Effective communication and presentation skills, Leadership and organizational skills, Time management and ability to work under deadlines.

WORK EXPERIENCE

Fake News Detection – Verzeo (B.E Final Year Internship)

Aug 2021 – Apr 2022

- Built an ML model using NLP techniques to classify news articles as fake or real, contributing to digital trust and media integrity.

IOT Based Soil Fertility Testing for Arecanut Crops – MTech. Feb 2024 - Apr 2024

- Researched soil fertility parameters using IoT technology to enhance arecanut crop production, gaining hands-on experience in soil sampling, testing, and data analysis. Collaborated with agricultural experts, visited soil testing labs, and explored machine learning techniques for agro-forecasting and yield prediction, contributing to sustainable farming solutions. Electronic Service.

PROJECTS

Smart Fertilization System with IoT using Machine Learning Algorithm

Jun 2024 - Aug 2024

- Achieved over 90% accuracy in iris segmentation, significantly improving the reliability of biometric identification systems and demonstrating strong potential for security and identity verification applications.
- Achieved over 80% precision in soil nutrient analysis using IoT sensors, ensuring accurate and data-driven fertilization decisions.

Automated Smart Water Monitoring System Using IOT.

Feb 2024 - Mar 2024

- The NodeMCU-powered smart pot leverages IoT to monitor soil moisture, temperature, and light through a web or mobile app. With sensors, real-time alerts, and automated watering, it streamlines plant care and enhances efficiency.

QR Code based Voting System – M. Tech Mini project.

- Designed a secure online voting system using QR code authentication with Python and enabling remote voting with real-time results and a user-friendly interface.

Send CSI Reporting from UE to BS in case of OTFS” | External Project from NOKIA.**Apr 2024 –Jul 2024**

- Developed and implemented CSI reporting from User Equipment (UE) to Base Station (BS) in OTFS systems, optimizing transmission efficiency and signal quality while addressing challenges related to overhead and mobility. Gained experience working on automotive-grade communication systems aligning with ADAS and V2X technologies.

A Min - Project on ECG Pattern Analysis using CNN Algorithm.**Apr 2024 - Jun 2024**

- A deep convolutional neural network for ECG-based classification of five arrhythmias (AAMI EC57 standard) and myocardial infarction (MI) through knowledge transfer. The method achieved 93.4% accuracy for arrhythmias and 95.9% for MI on PhysioNet datasets.

Blockchain Based Traceability System for Food Safety” – Published on IEEE Conference.**Aug 2023- Oct 2023**

- Blockchain technology enhances food safety by ensuring transparency, traceability, and accountability through an immutable, decentralized ledger, effectively addressing challenges such as contamination and fraud in the supply chain.

Image Encryption Using DNA addition combining with chaotic maps | B.E Final year.**Jun 2021-Aug 2022**

- A robust image encryption scheme leveraging DNA sequence addition and chaotic systems is proposed. The process includes encoding the image, applying Logistic map-based operations, and decoding to achieve encryption.

CERTIFICATES

- Pursuing **Junior Cyber Security Analyst** course at “Cisco Networking Academy.”
- Two days’ workshop National Webinar on “**Enhancing Employability Skills of Student**” at Manipal University Jaipur - Apr 29th, 30th, 2021.
- Certificate on **Internship** at **Verzeo Pvt. Ltd.** Company at Bangalore.
- National Level Webinar on “**Cyber Security,**” “**5G and beyond**”, “**Big Data Processing using Apache Spark**” at JNNCE – Jul 2020.
- Best Volunteer on “**Youth Red Cross**” and “**Blood Camp**” for three years at JNNCE.
- Computer Society of India (CSI) by **LoginWare Soft Tec Pvt. Ltd** from Student Club conducted “**Machine Learning**” and “**IOT – Applications**” workshop at JNNCE – Aug 2020 and March 2020.
- **NPTEL – Technical & Non – Technical**
 - Foundation of Cloud IoT Edge Machine Learning.
 - User-centric Computing for Human Computer Interaction.
 - Enhancing Soft Skills and Personality.
 - The Science of Happiness and Wellbeing.
- **IEEE Publication** - International Conference on Emerging Technologies in Computer Science for Interdisciplinary Applications (ICETCS) for “**Blockchain Based Traceability System for Food Safety.**”
- **MAT Journals Publication** Certificate from Journals of IOT Security and Smart Technologies On “**Smart Fertilization System IOT Using Machine Learning Algorithm.**”