

# Sushma H P

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## OBJECTIVE

To leverage my expertise in web development, Python programming, and data analysis to design and implement innovative, efficient, and user-centric solutions. Passionate about utilizing modern technologies to solve complex problems and continuously expanding my knowledge in AI and machine learning.

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## EDUCATION

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

2023 – 2024

Master of Technology (MTech) in Computer Network (ISE Branch) – CGPA: 9.2

- Specialized in network design, security, and optimization, with hands-on experience in routing, switching, and troubleshooting; completed advanced coursework in SDN, cloud networking, and network virtualization.

### Jawaharlal Nehru National College of Engineering, Shivamogga.

2018 – 2022

Bachelor of Engineering (B.E) in Computer Science – CGPA: 7.2

- Proficient in software development life cycle (SDLC) methodologies, with hands-on experience designing, coding, testing, and deploying application.
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## Technical Skill

- **Programming and Analysis:** Python, PHP, HTML, CSS, C, C++, Cryptography, UDP/TCP, Sockets (REST APIs), OSI Layers, VLANs.
  - **Operating Systems:** Linux (e.g., Ubuntu, CentOS), Windows Server.
  - **Libraries/Framework:** Data Analysis, Visualization, Node.js, Machine learning.
  - **Tools and Platforms:** VS Code, PyCharm, PowerBI, Notepad++, Jupyter Notebook, Android Studio, API's, R Studio, Git, Google Collab, OpenSSL (encryption & decryption), Ethereum, Ganache, Remix IDE, VirtualBox, MetaMask, Artificial Intelligence, ChatGPT Tools (Phind, Gemini & Bard etc.)
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## PROJECT

### 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.

### 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.

### 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.

### 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.

### Smart Fertilization System with IoT using Machine Learning Algorithm | MTech Final year.

Apr 2024 - Dec 2024

- A Smart Fertilization System (SFS) integrating IoT and machine learning to optimize crop yields. By analyzing real-time data, the system generates tailored fertilization schedules, enhancing agricultural productivity and supporting sustainable farming practices.

### 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.

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## EXPERIENCE

### Fake News Detection | B.E Final Year.

Aug 2021 - Apr 2022

- A machine learning-based approach for detecting fake news, utilizing natural language processing (NLP) to analyze textual features and classify articles as real or fake, aiming to enhance accuracy in mitigating misinformation.

### 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.

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## CERTIFICATIONS

- ❖ Two days' workshop National Webinar on “**Enhancing Employability Skills of Student**” at Manipal University Jaipur – Apr 29th, 30th, 2021.
- ❖ National Level Webinar on “**Cyber Security,**” “**5G and beyond**”, “**Big Data Processing using Apache Spark**” at JNNCE – Jul 2020.
- ❖ Computer Society of India (CSI) by Student Club conducted “**Machine Learning**” workshop at JNNCE – Aug 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 Inter-disciplinary 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.**”

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## ACHIVEMENTS

- Best Volunteer on “**YOUTH RED CROSS**” for 3 years.
- Best volunteer on “**BLOOD GROUP CAMP**” for 3 years.