

# Sana K S

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## PROFILE

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A disciplined and adaptive student proficient in Python, C, and Java, with hands-on experience in embedded systems and AI/ML projects. Consistently maintaining a decent CGPA and actively participating in coding endeavors and clubs. Possesses strong communication and leadership skills.

## EDUCATION

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<b>BTech Electrical and Computer Engineering,</b> Amrita Vishwa Vidyapeetham   CGPA - 8.84	Oct 2022 – present Kollam, India
<b>Higher Secondary,</b> Saraswati Vidya Niketan   Score - 80%	May 2020 – May 2022 Ernakulam, India
<b>High School,</b> Kendriya Vidyalaya No 1 Palakkad   Score - 95%	May 2010 – May 2020 Palakkad, India

## PROJECTS

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<b>MediMate,</b> IoT integrated Smart Pill Dispenser As part of the curriculum developed an automated pill dispenser system using ESP32 to manage medication schedules with real-time time synchronization for individuals with Alzheimer's and related diseases.	Jun 2024
<b>Electrical grid stability Prediction</b> App to predict the stability of an electrical grid using machine learning, leveraging a dataset containing simulated data of electrical grid components having several features which reflecting the grid's performance.	Oct 2024
<b>Economic Load Forecasting and Dispatch Optimization</b> Utilises Prophet for load forecast in a power grid to forecast load and uses Lambda iterations for optimizing economic load dispatch, ensuring cost-efficient power distribution.	Nov 2024
<b>ClimateWise,</b> AI Chatbot leveraging Retrieval-Augmented Generation to generate real-time, accurate responses to climate crisis-related queries by combining a vector database with a generative language model, offering offline, accessible, and context-aware information.	Nov 2024
<b>IntelliSearch,</b> Intelligent Search and Relevance Ranking Uses advanced algorithms to provide highly relevant results in searches, learns user behavior to continuously improve accuracy and for better search experience.	Dec 2024 – present

## INTERNSHIPS

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<b>Human Spaceflight Center, ISRO,</b> Student Intern focusing on developing AI models for space exploration and human-centered missions. Contributing to research and innovation in generative AI applications, leveraging machine learning to solve complex aerospace challenges	Nov 2024 – present Bangalore, India
<b>Amrita Center for Intelligent Grid and E-Mobility,</b> Member of Research Community Focusing on advancing sustainable energy solutions through intelligent grid technologies and electrical mobility, contributing to innovative research in optimizing energy distribution, grid security, and supporting the transition to electric mobility.	Nov 2024 – present Kollam, India

<b>Amrita Center for Wireless Networks and Applications</b> , Student Intern Contributed to developing and implementing MQTT communication protocols on ESP32 devices, key team member by designing and executing custom scripts for secure data exchange. Made significant contributions to project documentation and developed detailed technical reports.	Jan 2024 – May 2024 Kollam, India
<b>Web Security Researcher</b> , Team bi0s Actively participates in CTFs and leveraging expertise in web app security to tackle complex security challenges and improve team strategies.	May 2023 – Sep 2023 Kollam, India

INTERESTS

- AI/ML
- Embedded Software Development

SKILLS

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|-------------------|---------------------------|---------|-------------------------------|
| • Python          | • Java                    | • C     | • Microcontroller Programming |
| • Data Structures | • MQTT                    | • SQL   | • IoT                         |
| • OT Security     | • AI/ML Model Development | • CI/CD | • MLOps                       |

COURSES

<b>MLOps Deployment and Life Cycling</b> , Datacamp focuses on the end-to-end process of deploying machine learning models into production, covering model monitoring, scaling, and automation.	Nov 2024
<b>Machine Learning Fundamentals</b> , IBM - Cousera Introduction to the basic concepts of machine learning and AI, such as regression, classification, clustering and optimization algorithms.	Apr 2024 – May 2024

WORKSHOPS ATTENDED

<b>ARISE camp</b> , HuT Labs The AI Workshop Camp introduced participants to AI concepts from scratch, progressing to intermediate-level techniques with hands-on projects.	May 2024 Kollam, India
<b>Machine Learning Fundamentals</b> , IIT Palakkad introduces key machine learning concepts, including supervised and unsupervised learning, model evaluation, and feature engineering.	Feb 2024 Palakkad, India

LANGUAGES

<b>English</b> Proficient	<b>Malayalam</b> Proficient	<b>Hindi</b> Fluent
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