# Samarth Satish Airani

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#### Education

#### Nitte Meenakshi Institute of Technology

B.E. in Information Science and Engineering — CGPA: 8.49

Bangalore, Karnataka

Nov. 2022 - June 2026 (Expected)

## Vidyaniketan PU College

Pre-University Course (XII) — 81%

Hubli, Karnataka

June 2019 - March 2021

#### KLE English Medium School (CBSE)

Secondary School (X) — 80.6%

Hubli, Karnataka

April 2018 - March 2019

# Summary

Results-driven Information Science and Engineering student with skills in Java and SQL, and hands-on experience in AI/ML and software solutions. Built projects including a CNN-based healthcare diagnostic system and a library management system integrating MySQL with Java via JDBC. Familiar with Git, database management, and computer networks, with a focus on creating scalable and efficient applications.

## Experience

### AI Intern – IEEE Bangalore CS Chapter

Apr. 2025 – Present

Remote, Bangalore, India

- Built a stacked ensemble phishing detector (Random Forest + XGBoost) with 41 engineered features on 247K+ URLs, achieving 97.3% accuracy and 97.5% F1-score. Optimized performance using Optuna hyperparameter tuning, ROC-AUC validation, and feature importance analysis.

#### Projects

#### Smart Healthcare Assessment using CNN

- Developed a CNN to detect pneumonia from chest X-ray images, achieving high accuracy and recall. Preprocessed images using OpenCV and applied data augmentation for generalization. Integrated the model into a Flask-based web app for real-time predictions.

## Library Management System

- Engineered a Library Management System in Java with OOP design for books, users, and transactions. Integrated MySQL via JDBC, enabling real-time CRUD operations and inventory updates. Built an interactive console for dynamic user input and data visualization.

#### Technical Skills

Languages: Java, SQL

Developer Tools: Git, Jupyter, PyCharm, IntelliJ Technologies/Frameworks: Linux, GitHub

#### Certifications

# Oracle Cloud Infrastructure 2025 Certified AI Foundations Associate

# **Publications**

# Conference Presenter - COMPUTINGCON 2025

Sept 2025

DY Patil University, Ambi, Pune

• Presented paper titled "Ensemble-Based Phishing URL Detection: A Stacking Framework with Real-Time Deployment" at the 2025 International Conference on Computing and Communications (COMPUTINGCON).

# Conference Presenter – ICERECT 2025

Sept 2025

P. E. S. College of Engineering, Mandya

• Presented paper titled "Stability and Consistency Analysis of SHAP and LIME Explanations Across Machine Learning Models" at the Fifth International Conference on Emerging Research in Electronics, Computer Science and Technology (ICERECT-2025), technically sponsored by IEEE Bangalore Section.

#### Leadership / Extracurricular

## NSS Volunteer - National Service Scheme

2023 - 2025

NMIT, Bangalore

- Engaged in community service initiatives such as cleanliness drives, blood donation camps, and awareness campaigns. Promoted health, education, and environmental awareness in local communities.

#### Tech Lead – DataWiz Club

2024 - Present

NMIT, Bangalore

- Leading the technical team of the DataWiz student club, focusing on AI/ML, data science, and research-driven projects. Organizing a college-level hackathon to promote innovation and hands-on problem solving among students. Coordinating a tech talk series with industry professionals to bridge the gap between academia and industry practices.