



# ADITH R LAL

SECOND - YEAR  
COMPUTER SCIENCE  
ENGINEERING  
STUDENT

## CONTACT

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- <https://github.com/adith-r-lal>

## EXPERTISE SKILLS

- Programming Languages:**  
C, C++, Python, Java, HTML, CSS, JS
- Machine Learning:**  
Basics of ML Models, currently learning ML concepts
- Embedded Systems:**  
Arduino-based robotics
- Tools & Frameworks:**  
Git, GitHub, Matplotlib, NumPy, Matlab, debugging skills
- Soft Skills:**  
Teamwork, leadership, communication, time management

## LANGUAGE

- |           |          |
|-----------|----------|
| English   | ●●●●●●●● |
| Hindi     | ●●●●●●●● |
| Malayalam | ●●●●●●●● |

## KEY ACHIEVEMENTS

### School Head Boy

Led student body, managed events, and served as a link between administration and students.

## PASSIONS & INTERESTS

- Programming & Algorithm Design
- Technology & Innovation
- Content Creation & Education
- Team Collaboration & Personal Development

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## PROFILE

Aspiring Computer Science Engineer with a strong passion for programming, algorithms, and software development. Proficient in C, C++, Python, Java, and JavaScript, with hands-on experience in Object-Oriented Programming (OOP), and Data Structures and Algorithms (DSA). Skilled in using Git and GitHub for version control and collaboration.

Actively exploring the fields of Artificial Intelligence and Machine Learning, with foundational knowledge of linear regression, deep learning, and practical exposure through MATLAB, having completed ML and Deep Learning Onramp courses.

Experienced in Arduino-based robotics and embedded systems projects, demonstrating both technical problem-solving and team collaboration. Comfortable with data analysis and visualization using Matplotlib and NumPy.

Always eager to learn and innovate, with a keen interest in building intelligent systems and contributing to impactful software solutions.

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## EDUCATION

### BTech Computer Science Engineering

Cochin University of Science and Technology (2024 - ongoing)

### Senior Secondary School (SSCE)

Amrita Vidyalayam, Pathanamthitta (June, 2022 - March, 2024)

- CBSE Board | Physics, Chemistry, Maths, Biology
- 97% Score in Boards

### Secondary School (SSE) (Part-time, April 2024 - Present)

Amrita Vidyalayam, Pathanamthitta (June, 2016 - March, 2022)

- CBSE Board
- 96.6% Score in Boards

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## EXPERIENCE

### Kottak Medical Systems

- Assisting in component-level, card-level, and software-level repair, calibration, design, and consultancy of medical equipment.
- Worked on imaging equipment: X-ray, CT scan, O-arm, mammography, MRI, PET, ultrasound, and color doppler systems. Supported surgical devices: surgical robotic systems, endoscopes, and electrosurgical units.
- Experienced with laboratory equipment: fully auto chemistry analyzers, hematology analyzers, ELISA systems, and blood gas analyzers (BGA). Handled ICU equipment: ventilators, patient monitors, defibrillators, and dialysis machines.

### AI/ML Workshop at NITC

Attended an AI/ML workshop at NITC, where I gained foundational knowledge of machine learning concepts, including data preprocessing, model training, and evaluation. Learned and implemented linear regression for predictive analysis using real-world datasets.

1. **Arduino-based Robotics Projects** – Working on automation using sensors, actuators, and microcontrollers.

- **Project: Sunflower – Dual-Axis Solar Tracker**

Designed and developed an Arduino-based dual-axis solar tracking system using 5 LDR sensors and 2 MG996R servo motors to maximize solar energy capture. Implemented real-time light intensity detection and motor control logic for optimal panel orientation. The system enhances energy efficiency by dynamically adjusting to the sun's position throughout the day.

Github Link : [https://github.com/adi-makes/solar\\_tracking\\_system.git](https://github.com/adi-makes/solar_tracking_system.git)

2. **Software Development in C, C++, Python, Java** – Developing structured programs.

3. **Breast Cancer Prediction Project**

- *Brief:* Developed a machine learning model to accurately classify breast tumors as either malignant or benign based on various clinical features. The project involved a comprehensive data pipeline from exploration and cleaning to model training and evaluation.
- *Key Methodologies:* Data loading, exploratory data analysis, data cleaning (handling irrelevant columns), and data visualization.
- *Models Trained:* Logistic Regression, Random Forest Classifier, and Support Vector Classifier (SVC).
- *GitHub Link:*

[https://github.com/adi-makes/Breast\\_Cancer\\_Prediction\\_test.git](https://github.com/adi-makes/Breast_Cancer_Prediction_test.git)

4. **Glucose Level Prediction Project**

- *Brief:* Created a predictive machine learning model to forecast glucose levels using health-related features from the Framingham dataset. This project emphasized robust data preprocessing, insightful feature engineering, and rigorous model evaluation.
- *Key Methodologies:* Data import and exploration, extensive data cleaning (including null value imputation and format correction), visualization of health indicators, and feature selection/engineering.
- *Models Trained:* Logistic Regression, Decision Tree Regressor, and Random Forest Regressor.
- *GitHub Link:*

[https://github.com/adi-makes/Glucose\\_Prediction\\_Summary.git](https://github.com/adi-makes/Glucose_Prediction_Summary.git)