Bala Subrahmanyam Garimella

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Bala Subrahmanyam

Education

2022 – Present — **B.Tech - Computer Science Engineering, BV Raju Institute of Technology**
CGPA: 8.87

2020 – 2022 — **Board of Intermediate Education(MPC), Sri Chaitanya Junior College**.
Passed with 96.8%

2019 – 2020 — **Board of Secondary Education, Nava Jyothi High School**.
Passed with 10 GPA

Research Publications

Conference Proceedings

1. G. Bala Subrahmanyam, "Advancing healthcare accessibility: Development of an ai-driven multimodal chatbot," in *Proceedings of the IEEE 2024 4th International Conference for Intelligent Technologies (CONIT)*, Hubballi, Karnataka, India, 2024, p. 10.

Skills

- Languages: Strong reading, writing, and speaking competencies in English, Telugu, and Hindi.
- Coding: Python, C, C++, Java, JavaScript, HTML, CSS, Data Science, Machine Learning algoritms, DSA, DBMS.
- Databases: MySQL, MongoDB.
- Web Dev: React, Angular, Node.js, Express.js, JavaScript, HTML, CSS
- Remote Sensing: **Geospatial Analysis**: Expertise in analyzing spatial data for environmental and land use applications. **LULC (Land Use/Land Cover)**: Proficient in identifying and classifying land cover types. **LandTrendr**: Skilled in using the LandTrendr model for detecting land cover changes and calculating vegetation age. **Platforms:** Google Earth Engine, ArcGIS

Experience

Work Experience

2024 — **Intern, National Institute of Advanced Studies (NIAS)**,During my 45-day internship at the National Institute of Advanced Studies, I worked on remote sensing techniques to identify rubber plantations in Assam using satellite imagery within the Google Earth Engine platform. My work involved analyzing large-scale data to accurately detect plantation areas and applying the LandTrendr model to calculate the age of rubber plantations. This experience enhanced my skills in geospatial analysis and satellite data processing, contributing valuable insights into plantation dynamics.

Experience (continued)

Awards and Achievements

- **Oral Presentation and Publication**, IEEE 2024 4th International Conference for Intelligent Technologies (CONIT), Hubballi, Karnataka, India.

2023

- **Finalist**, IEEE YESIST 12, Tunisia.
- **Presentation**, IEEE YESIST 12, NMIT Bangalore.

High School

- **Two Gold Medals and a Silver Medal**, ABACUS competitions conducted by MATH-2-MERIT Academy.
- **Certificates**, Essay writing, elocutions, and drawing competitions.
- **Distinction**, High school and Intermediate education.

Certifications

2024

- **AI-ML Virtual Internship**, Google for Developers.
- **Programming in Java**, NPTEL Platform.

2023

- **Android Developer Virtual Internship**, Google for Developers.
- **CISCO C Essentials (CLA)**, CISCO Platform.

ongoing

- **Web Development Training**, Bolt IoT.

Projects

- **Machine Learning for Characterization of Rubber in Parts of North-East India using Google Earth Engine**. Developed a remote sensing-based machine learning pipeline to identify rubber plantations in Assam using Landsat and Sentinel imagery. Applied the LandTrendr model to estimate plantation ages, contributing to environmental monitoring and sustainable land management.

- **Advancing Healthcare Accessibility: Development of an AI-driven Multimodal Chatbot**. Built an AI-based chatbot integrating text and voice inputs to assist users in accessing healthcare services and information. Accepted at IEEE CONIT 2024 and presented at IEEE YESIST 12 (Bangalore and Tunisia finals).

- **Crop Price Prediction**. Designed and trained a Linear Regression model to forecast agricultural crop prices based on historical pricing data, helping farmers and market stakeholders make informed decisions.

- **Twitter Sentiment Analysis**. Implemented a Decision Tree Classifier to analyze Twitter data, categorizing sentiments into positive, negative, and neutral classes. Focused on real-world events and public sentiment trends.

- **Heart Failure Prediction**. Built a robust ensemble of models including Decision Trees, Support Vector Machines (SVM, SVC), Logistic Regression, and Random Forest to predict the likelihood of heart failure from clinical parameters with high accuracy.

- **Titanic Survival Prediction**. Modeled passenger survival probabilities on the Titanic dataset using Logistic Regression, optimizing feature engineering techniques to improve prediction scores.

Experience (continued)

- **Face Recognition-based Attendance System**. Designed a real-time facial recognition attendance system using Python, OpenCV, and the Face Recognition library. Implemented user face registration, live detection, attendance logging to Excel, and face encoding storage. Built modular utilities for face encoding, attendance tracking, and real-time status updates. Enhanced the project with robust structure and scalability.

- **Breast Cancer Survival Prediction**. Developed a machine learning pipeline to predict breast cancer patient survival outcomes using the METABRIC dataset. Applied preprocessing, feature selection, and trained models including Decision Trees, Random Forests, and Logistic Regression to achieve accurate classification of patient survival status. Emphasized healthcare-related machine learning applications.

Extracurricular Activities

- **Football Player**, Representing the college team.
- **Class Representative**, 3rd and 4th semesters.

Personal Attributes

Personality Traits

- Strong interpersonal skills
- Ability to multi-task
- Effective communication
- Very active and productive during work

Interests

- Reading Books
- Listening to music
- Playing Sports
- Coding

Personal Information

- **Date of Birth**: 25 August 2004
- **Gender**: Male
- **Nationality**: Indian
- **Marital Status**: Unmarried
- **Address**: 12-219 Adarsh Nagar, Opp IDPL Colony, Hyderabad, Telangana-500037
- **Contact Number**: 8978167639