

Ritabrato PANI



PROFILE SUMMARY

A proactive Computer Science student with hands-on experience in **Mobile App Development (Flutter, Kotlin)** and **Web Development**. Adept at integrating **AI/ML models** to enhance application functionality and user experience. Possesses strong problem-solving skills demonstrated through a portfolio of projects that apply modern technologies to solve real-world challenges.

CONTACT DETAILS

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PERSONAL INFORMATION

Citizenship: **Indian**
Languages: **English, Hindi, Bengali**

CERTIFICATIONS

- Google Generative AI
– AICTE Internship

View
- IBM DevOps and Software Engineering
– Coursera

Verify
- Red Hat Enterprise Linux
– Red Hat

Verify
- AWS Academy Cloud Architecting
– Amazon Web Services

Verify

HOBBIES

Listening Music, Playing Cricket, Reading Books

LINKS

LinkedIn | GitHub | Portfolio

EDUCATION

Kalinga Institute of Industrial Technology B. Technology, Computer Science Engineering	2022 – Present CGPA: 9.11 / 10.0
Mahesh Sri Ramkrishna Ashram Vidyalaya Higher Secondary Education (12th Grade)	2020 – 2022 Percentage: 92%
Mahesh Sri Ramkrishna Ashram High School Secondary Education (10th Grade)	2010 – 2020 Percentage: 93%

PROJECTS

CalX - Android Calculator App

- Developed a native Android calculator featuring a **robust engine**, a multi-base number system converter (Bin/Dec/Oct/Hex), and various unit converters.
- Implemented a user-focused UI with calculation history, dual **Light/Dark themes**, and modern features like monochromatic icons (Android 13+).
- Tech Stack:** Java, XML, Android Studio

Multi-Functional Web Clock

- Developed a responsive, **single-page application** with **vanilla JS**, HTML, and CSS, featuring a real-time clock, stopwatch, and countdown timer with full user controls.
- Tech Stack:** Vanilla JS, HTML5, CSS3

Synth - Personal Web Music Player

- Developed a fully responsive, single-page music player using **vanilla JavaScript**, featuring drag-and-drop file uploads (**Web File API**), full playback controls, and persistent theme customization (**LocalStorage**).
- Tech Stack:** Vanilla JS, HTML5, CSS3, Web File API, LocalStorage

Plant Disease Detection Model

- Engineered an end-to-end detection system by fine-tuning a **YOLOv11** model on the augmented **PlantVillage dataset**, achieving a final accuracy of **75%**.
- Applied **PCA** for feature analysis and implemented extensive data augmentation to optimize model performance.
- Tech Stack:** Python, PyTorch, YOLOv11, OpenCV, Scikit-learn

MATLAB Analogue Clock GUI

- Engineered a real-time analogue clock in **MATLAB**, developing a custom **Graphical User Interface (GUI)** from scratch and implementing an optimized animation loop for rendering.
- Tech Stack:** MATLAB, MATLAB App Designer

TECHNICAL SKILLS

Languages	C, C++, Java, Python, SQL, Shell Scripting
Development	Mobile: Android Studio, Java, Kotlin, Flutter Web: HTML, CSS, JavaScript, PHP, MongoDB
AI / ML	Scikit-learn, NumPy, Matplotlib, OpenCV
Databases	MySQL, Oracle DB, PL/SQL
Tools & Tech	MATLAB, Git, GitHub, MS Office Suite
Core Concepts	Data Structures & Algorithms, OOP, OS, DBMS, Computer Networks