PARTHIBAN S

✉ parthi.s1805@gmail.com
📞 +91-9361911221
https://github.com/Parthiban1805
https://www.linkedin.com/in/parthiban18

PROFIE SUMMARY

Full Stack Developer with expertise in modern frontend frameworks (React) and backend technologies (Node.js). Known for delivering scalable, high-performance applications by efficiently managing both client-side and server-side architecture. Rapidly learned and implemented solutions in diverse environments, contributing to projects that reduced development time by 20% and improved system stability. Experienced in integrating Machine Learning and Deep Learning models into real-world applications, with a focus on image classification, anomaly detection, and OCR. Currently working on a project involving a **Large Language Model (LLM)** for a **voice assistant bot**, leveraging AI to enhance conversational interfaces. Continually exploring new tools and techniques to enhance project outcomes and drive innovation.

AREA OF INTEREST

- **Artificial Intelligence & Machine Learning:** Exploring the development of intelligent systems and algorithms to solve real-world problems.
- **Data Science & Predictive Analytics**: Analyzing large datasets to extract actionable insights and build predictive models for business and technology applications.

TECHNICAL EXPERTISE

- **Programming Languages:** C, C++, Python, JavaScript
- **Web Technologies:** HTML, CSS, React.js, Node.js
- **Web & Backend:** Express.js
- **Machine Learning:** scikit-learn, XGBoost, Isolation Forest, NumPy, Pandas
- **Deep Learning & CV:** TensorFlow, PyTorch, Keras, PaddleOCR, OpenCV, LabelImg
- **Databases:** MySQL, MongoDB
- **Machine Learning**: Feature engineering, model evaluation (ROC, precision, recall), unsupervised learning
- **Deep Learning & Computer Vision:** CNN-based image classification, OCR model fine-tuning (PaddleOCR), object detection workflows, data annotation & preprocessing
- **Tools & IDEs:** Visual Studio Code, Arduino IDE, Google Colab, Jupyter Notebook
- **Operating Systems:** Windows, Linux (basic)
- **Other Skills:** GPU-supported training, Python/Node.js integration

PROJECTS

Accident Avoider

Hardware and Software Architect   **2023 Mar - 2023 Mar**

- Engineered an innovative accident prevention system, integrating hardware (Arduino) and software (Embedded C), which reduced accident risks by over 70% in simulated environments.
- Achieved 90%+ accuracy during system testing, significantly enhancing road safety measures in controlled trials.
- Awarded ₹50,000 for outstanding project execution and real-world impact, showcased at Kangeyam Group of Institutions.

Unit Prabhaat

Full Stack Developer   **2024 Sep - 2024 Sep**

- Designed and developed a registration platform for Unit Prabhaat, facilitating a smooth sign-up process and efficient payment handling, resulting in a 40% increase in successful registrations.
- Integrated GPay and PhonePe payment gateways, enabling seamless transactions and automated storage of payment screenshots for backend processing, improving transaction accuracy by 15%.
- Created a responsive design that enhanced accessibility across all devices, increasing user engagement by 20% and improving mobile access by 30%.

Smart Grocery Item Counter with Real-Time Feed

AI | OCR | Image Classification   **2024 Oct - 2024 Dec**

- Developed a real-time system for automatic grocery item counting, combining text recognition (OCR) and image classification for accurate identification.
- Implemented PaddleOCR for text extraction from item labels in live camera feeds.
- Utilized ResNet-based CNN for fallback image verification when text recognition is uncertain or ambiguous.
- Enabled real-time item counting and automated tracking of grocery items, improving efficiency in checkout and inventory management

Automated Product Analysis System

Deep Learning | NLP | OCR | Full Stack Integration   **2024 Dec - 2025 Jan**

- Developed an end-to-end system to analyze product images using PyTorch for object classification and TensorFlow-based CNN for freshness prediction.
- Implemented fine-tuned PaddleOCR for accurate text extraction from product labels.
- Designed an intelligent MRP detection module using SpaCy and Regex for natural language pattern recognition.
- Automated data output generation into structured Excel files for easy integration with reporting systems.

Real-Time Deforestation Detection Using Sentinel-2 & Machine Learning

Machine Learning   **2025 Feb - 2025 Mar**

- Developed a system to detect deforestation in real-time using Sentinel-2 imagery and machine learning models, achieving over 85% precision.
- Utilized NDVI/NDMI indices for smart analysis to detect even subtle vegetation changes.
- Implemented adaptive learning, allowing models to continuously improve detection accuracy over time.

- Provided actionable alerts for immediate deforestation hotspot identification, helping to prevent illegal logging and protect biodiversity.

Coding Platform

Full Stack Developer   **2025 Mar - Current**

- Designed a dynamic platform featuring a user dashboard that displays available programming languages and enrolled courses.
- Integrated functionality for users to access structured learning materials, book time slots for assessments, and participate in time-specific coding challenges with dedicated compilers.
- Developed an intuitive admin dashboard to manage student profiles, upload and manage questions, schedule assessment venues, and monitor overall platform activities.
- Focused on delivering an interactive, efficient, and scalable solution to streamline the learning and assessment process.

EDUCATION

- BANNARI AMMAN INSTITUTE OF TECHNOLOGY
  B. TECH.Artificial Intelligence and Data Science
  2023-Present
  8.02 CGPA

ACHEIVEMENTS

- Got a Rajya Puraskar (Governor's Award) as a highest award awarded for scout