CHANDRIMA DAS

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PROFESSIONAL SUMMARY

Junior Data Scientist and M.Tech student in Robotics and AI at IIT Guwahati, with a B.Tech in Electronics and Communication Engineering. Experienced in machine learning, signal processing, computer vision, and LLM applications, from physics research at SINP to production analytics at Calsoft. Builds end-to-end systems shipped as live web apps. Interested in AI research, generative models, robotics, and healthcare.

EDUCATION

M.Tech – Robotics and Artificial Intelligence 2026 – Present
Indian Institute of Technology Guwahati

B.Tech – Electronics and Communication Engineering 2022 – 2026
RCC Institute of Information Technology CGPA: 8.2

Higher Secondary (WBCHSE) 2022
Bethune Collegiate School 92%

Secondary (WBBSE) 2020
Bethune Collegiate School 93%

EXPERIENCE

Junior Data Scientist – Calsoft Inc. Dec 2025 – Present

- Clean, transform, and analyse real-world datasets end to end to support product strategy and business decisions.
- Build interactive Power BI dashboards and analytical reports that product teams and stakeholders use for decision-making.

Thesis Researcher – Saha Institute of Nuclear Physics Mar 2025 – Jul 2026

- Researched ML-based neutron–gamma discrimination of acoustic signals for a superheated-liquid dark-matter detector.
- Built an end-to-end pipeline: LabVIEW acquisition of FPGA-processed signals, energy-based pulse localisation, 512-D STFT features.
- Implemented Logistic Regression and SVM from scratch on 200 real events (up to 100% accuracy); deployed as an in-browser dashboard.

AI–ML Intern – Calsoft Inc. Jun 2025 – Dec 2025

- Built machine learning, deep learning, and LLM-based solutions in Python for exploratory analysis and solution development.
- Tested and validated models and dashboards before release, evaluating performance to ensure reliable results.

PROJECTS

Construction Copilot – LLM Agent for CAD Drawings Live Demo

- Built an LLM agent that answers plain-English questions on building plans and circuits via 20 tools that measure values from DXF files.
- Added hybrid BM25 + vector search to cite exact spec clauses for pass/fail compliance checks; runs online or fully offline.

Marginalia – RAG-Based Document Q&A Live Demo

- Built a serverless retrieval-augmented Q&A app that grounds answers only in the top-4 relevant passages of an uploaded PDF.
- Parsed PDFs in the browser and stored Gemini embeddings in Netlify Blobs, removing the need for an external vector database.

Plugged In – Electric Vehicle Analytics Dashboard Live Demo

- Analysed 50,000 Washington State electric vehicles in an interactive dashboard of adoption trends and growth patterns.
- Computed every figure, chart, and insight live from the raw CSV, so a new data export updates the dashboard with no code changes.

ANPR – Automatic Number Plate Recognition

- Detected vehicles and Indian number plates with YOLOv8, read them with EasyOCR, and corrected look-alike characters via an LLM.
- Extended the pipeline to classify vehicle type and colour.

TECHNICAL SKILLS

Languages: Python, SQL, JavaScript, HTML, CSS
Machine Learning & AI: Machine Learning, Deep Learning, Computer Vision, Signal Processing (STFT), Model Evaluation & Validation
LLMs & Generative AI: RAG, LLM Agents & Tool Calling, Embeddings, Hybrid Search, LangChain, Gemini
Libraries & Frameworks: scikit-learn, TensorFlow, NumPy, Pandas, Matplotlib, OpenCV, YOLOv8, EasyOCR, Flask
Data & Tools: Power BI, MS Excel, LabVIEW, Git, Linux, Netlify, Vercel

PUBLICATION

Machine Learning–Based Discrimination of Neutron and Gamma-Ray Induced Acoustic Signals in Superheated Liquid Detectors
With the Saha Institute of Nuclear Physics Manuscript in preparation

POSITION OF RESPONSIBILITY & ACHIEVEMENTS

- Placement Representative, ECE Department, RCCIIT (2024–2026).
- Alumni Point of Contact, RCC Talkies, RCCIIT (2024–2025).
- Secured AIR 10945 and Category Rank 647 in IISER Aptitude Test (IAT); selected for IISER Bhopal.