

D BHARGAVA RAMA SARMA

Bengaluru, Karnataka - 560062

9869326115 bhargavaramasarma@gmail.com LinkedIn GitHub Portfolio

Education

PES University • Aug 2023 - May 2027 (Expected)

Bachelor of Technology in Artificial Intelligence and Machine Learning • Bengaluru, Karnataka

Vedanta PU College • Jun 2021 - Apr 2023

Senior Secondary School Education, PU Board Karnataka • Bengaluru, Karnataka

Work Experience

Cyient • Jun 2026 - Jul 2026

Software Engineering Intern • Bengaluru, Karnataka

- Developed an internal OCR tool in a team of 2, building a document understanding pipeline that combines CNN-based layout detection, transformer-based text recognition, and attention mechanisms to extract structured fields from scanned documents with 88% extraction accuracy.
- Designed the document quality analysis and preprocessing layer end-to-end, implementing image denoising, deskewing, and adaptive thresholding across the ingestion pipeline, a key contributor to the pipeline's 88% extraction accuracy on low-quality scanned inputs.

Centre for Healthcare Engineering and Learning • Jun 2025 - Jul 2025

Research Intern • Bengaluru, Karnataka

- Trained XGBoost and k-NN classification models using librosa audio features and CNN image features to detect Parkinson's disease from voice recordings and handwriting-based wave and spiral patterns across three input modalities, achieving 85% classification accuracy.
- Engineered a Flask web application enabling real-time sample upload and AI-powered symptom analysis across 3 distinct input modes (voice, spiral drawing, wave drawing), integrating all trained models behind a single interface.

Projects

Real-Time Collaborative Drawing Board with Mini-RAFT | Node.js, Express.js, WebSocket, Docker, Docker Compose

- Implemented a RAFT-inspired fault-tolerant consensus algorithm across a 3-node replica cluster with automatic leader election, majority-based log replication, and follower state recovery after restarts.
- Built a collaborative canvas supporting concurrent multi-user drawing, where operations are forwarded to the current leader, replicated across all 3 nodes, and broadcast to connected clients in real time via WebSocket; orchestrated with Docker Compose for consistent multi-service deployment.

Global Conflict and Event Tracker | Next.js, TypeScript, Supabase, Perplexity AI, Leaflet

- Architected a real-time intelligence dashboard leveraging Perplexity AI for NLP-based event extraction and automated severity classification, running on an hourly data ingestion pipeline that continuously refreshes global event coverage.
- Built an interactive geospatial map interface using React-Leaflet and Tailwind CSS with dynamic marker clustering, backed by a Supabase PostgreSQL database for persistent event storage.

Sports Celebrity Image Classification | Flask, OpenCV, Sklearn, HTML/CSS, JavaScript

- Developed image classification ML model using wavelet transforms for feature extraction (95% accuracy); implemented Flask backend with OpenCV and Sklearn.
- Designed responsive frontend with Dropzone.js for image uploads.

Skills

Languages: Python, JavaScript, TypeScript, Java, C++

Web & Backend: React, Next.js, Node.js, Express.js, FastAPI, Flask

Databases: MongoDB, PostgreSQL, Supabase

ML/AI & Tools: TensorFlow, Keras, XGBoost, Scikit-learn, OpenCV, Pandas, NumPy, Docker, Git

Certifications

Machine Learning Specialization (Supervised ML, Advanced Learning Algorithms) • Oct 2024 - Mar 2025

DeepLearning.AI - Coursera | Credential IDs: BA3S77PYIFC2, 3VO3ERU77VBS •

Licensed Amateur Radio Operator, Callsign VU3FHA • Oct 2024

Department of Telecommunications, Government of India •

Certification: Blockchain Basics • Mar 2026 - Mar 2027

Cyfrin Updraft | Credential ID: RFCNHZSFNSPZX •

Achievements & Extracurricular Activities

- **State Champion, Zonal Runner-up, and National Finalist** at the RBI90 National Quiz Competition (Nov-Dec 2024), part of a prize pool exceeding Rs. 6 Lakhs; additionally placed in the top 3 at multiple inter-college and inter-university open quizzes.
- **Multiple awards** at inter-college Model United Nations (MUN) conferences (2024-2025), including an Honourable Mention at Jigyasa 4.0 MUN; represented institutions as a delegate across several committees.

QQC Quiz Club, PES University | Marketing and Operations Head • Dec 2023 - May 2026

- Organized college-level and inter-college competitive quizzes attracting hundreds of participants across events.
- Curated question sets spanning science, technology, current affairs, and general knowledge for open quizzes.

MUNSoc, PES University | Marketing Head • Sep 2024 - May 2026

- Delegated at multiple Model United Nations conferences across various committees.
- Managed end-to-end logistics for UniCon, an inter-college Model UN conference with hundreds of participants.

Akshaya Patra Foundation | Volunteer • Aug 2023

- Contributed to community meal preparation initiatives serving underprivileged children.