Galaba Vamsi

Machine Learning Engineer | New Grad, May 2027 galabavamsi12@gmail.com
galabavamsi.com | linkedin.com/in/galabavamsi | github.com/Galabavamsi

SUMMARY

I build ML models and test them on real-world data, not just benchmarks; co-author of an embodied-AI evaluation paper.

EDUCATION

B.Tech. in Mechatronics, Indian Institute of Technology (IIT) Bhilai Aug 2023 – May 2027
Coursework: AI and ML, Deep Learning for Computer Vision, Digital Image Processing, Optimal Control, DSA

PROJECTS

Pehchaan: voice-clone fraud detection for UPI payments (team of 2; I led ML) Oct 2026
PyTorch, XLS-R, AASIST, FastAPI, AWS GPU | Top 8 Grand Finalist of 4,500+ teams, RAKSHAM | github.com/Galabavamsi/pehchaan
- Fine-tuned XLS-R-300M + AASIST: 4.8% equal error rate vs 34.3% off the shelf; 6.0% on held-out voice generators.
- Cut error on 41 real phone calls from 24.6% to 6.8% by adding real-call clips and a learned speakerphone channel.
- Ablation: real-call clips alone gave 9.3%, the learned channel alone 18.6%; on an unseen phone, 11.7%.
- FastAPI risk API answers in 3.95 ms (p95); on two real phones, a cloned call put a payment on hold in 14 s.

VLA Policy Fine-Tuning on Robot Arms (π0.5) 2026
Python, PyTorch | private work
- Fine-tuned and trained π0.5 vision-language-action (VLA) policies with custom training runs for robot-arm manipulation.

WEAR Dataset Challenge @HASCA 2026 (Kaggle): 5th of 232 teams Oct 2026
PyTorch, LightGBM | write-up: galabavamsi.com/blog
- Recognized 18 exercises from wearable IMU and video of 4 unseen people: macro-F1 0.93137 (private leaderboard).
- Improved a public notebook from 0.92497 to 0.93825 (public board) with per-subject whitening; rejected a data leak.

World Model for Robot Manipulation: JEPA on LeRobot Push-T Aug 2026
PyTorch, LeRobot Push-T | write-up: galabavamsi.com/blog
- Trained a 1.9M-parameter JEPA world model (predicts the next state) in 7 minutes on an 8 GB laptop GPU.
- Published the negative result: predictions fell behind a no-change baseline after 2 steps; the planner scored 0.

Amazon ML Challenge (team): All India Rank 747 (2025), 200 (2026) 2025 – 2026
Qwen2-VL, ViT, RoBERTa
- Predicted product prices from images and text with Qwen2-VL 7B and a ViT/RoBERTa two-tower model.

Arista Wi-Fi Radio Resource Management (team): 5th of 23 IITs, Inter IIT Tech Meet 14.0 Dec 2025
PyTorch, NS-3
- Classified 16 interference types from I/Q samples (STFT, DBSCAN, dual CNN) for a 5-AP, 50-client NS-3 network.

EXPERIENCE

Co-founder, Robotropic (physical-AI startup) | robotropic.com Oct 2026 – Present
- Building Harness to roll out new robot policies (VLA checkpoints) cell by cell, with shadow-run scorecards and rollback.

Co-founder, Human Slop (anti-AI social app) | humanslop.in Mar 2026 – Present
- Built a keystroke-timing heuristic that flags likely AI-written posts; app live on web and Google Play (50+ downloads).

Research Intern, IIT Bhilai | Advisor: Dr. Arzad Alam Kherani May 2025 – Jul 2025
- Built RIS-SIM, an open-source Python radio emulator with SDR-style interfaces; co-author, IEEE INDICON 2025.

OPEN-SOURCE CONTRIBUTIONS

HFlow, Hebbian Robotics (YC S26): 8 merged PRs, 7 issues filed (all fixed) Sep 2026 – Oct 2026
Robot training-data SDK | Python, Apache Arrow | github.com/Hebbian-Robotics/hflow
- Fixed robot-log export silently dropping any field missing from the first message (PR #657); 9 regression tests.

Inspect Robots, Robocurve (YC S26): 2 merged PRs, 3 in review, paper co-author Sep 2026 – Oct 2026
Evals for LLM and VLA robot policies | Python | github.com/robocurve/inspect-robots
- Merged: configurable LLM-API retries honoring Retry-After across 5 protocols, 22 test cases (PR #476).
- Published inspect-robots-wandb on PyPI: Weights & Biases logging for robot-policy evals, 100% test coverage.

Cerulion (YC S24), open-source robot operating system: 5 merged PRs, 4 issues filed Oct 2026
Rust | github.com/cerulion-inc/cerulion

SKILLS

ML: PyTorch, Hugging Face, fine-tuning (VLA pi0.5, speech, vision-language), LightGBM, Weights & Biases
Evaluation: equal error rate, held-out test sets, cross-validation, leakage checks, ablations
Languages and tools: Python, SQL, TypeScript, FastAPI, Docker, AWS (EC2 GPU), Linux, Git, pytest

ACHIEVEMENTS

- Top 8 Grand Finalist of 4,500+ teams, RAKSHAM AI Cybersecurity Hackathon (IIT Delhi, I4C and Amazon), 2026
- Prime Minister's Scholarship Scheme scholar (2024); Top 1% in JEE Advanced; YC Startup School, Bengaluru

PUBLICATIONS

- Co-author, *Inspect Robots: Evaluating the Capabilities and Safety of Embodied AI* (Robocurve), CoRL 2026 workshop
- Co-author, 2 RIS papers: IEEE INDICON 2025 and *Ad Hoc Networks* (Elsevier, 2026)