AMEYA BORKAR

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EDUCATION

Vishwakarma Institute of Technology, Pune B.Tech CS (AI & ML), Second Year, CGPA 8.94 — 2024 - 2028
UC Berkeley CS 160 (User Interface Design & Development), CS 161 (Computer Security) — Summer 2026
Pioneer Public School, Pune Class 12, 81.4% — 2022 - 2024
The Bishop's School, Pune ICSE (Class 10), 92.1% — 2011 - 2022

TECHNICAL SKILLS

Languages: Python, C, C++, Java, TypeScript, JavaScript, SQL
AI / ML: Deep learning, NLP, computer vision, LLMs and AI agents, prompt engineering
Systems & Backend: Distributed systems, operating systems, databases, containers, REST APIs, full-stack web
Always learning: comfortable picking up new languages, tools, and domains quickly, and shipping real work with them.

EXPERIENCE

Backend Developer | *KissanKonnect* — Jan 2026 - Feb 2026
- Built and deployed the official production website for a high-growth agritech company. Wrote the full backend (Express.js, Supabase, Razorpay, REST APIs) behind a Next.js frontend. It is live and serving real users.

AI Engineer | *Aria Technologies* — Jun 2025 - Jul 2025
- Built a production NL-to-SQL chatbot with LLM fine-tuning, semantic schema mapping, and prompt-injection safeguards. Shipped to internal users in 6 weeks.

AI/ML Coordinator | *Microsoft Learn Student Club, VIT Pune* — Aug 2025 - Present
- Lead the AI/ML vertical. Run 10+ workshops on Agentic AI, NLP, and computer vision for 100+ members, and source industry projects like KissanKonnect.

AI/ML Developer | *Google Developer Group (GDG)* — Sep 2024 - Jun 2025
- Built and shipped ML models in TensorFlow and PyTorch for predictive analytics, NLP, and computer vision. Mentored 20+ developers on transformer architectures.

Computer Vision Head | *Team Griffin India* — Sep 2024 - Jun 2025
- Architected the autonomous CV stack (YOLOv8 detection, tracking, ROI) for Jetson Nano. Led 5+ engineers to **AIR 1 (Overall and Design Report)** at SAE Aeromodelling Challenge 2025.

Treasurer, Board of Directors | *Rotaract Club* — 2026 - 2027
- Serve on the Board of Directors as Treasurer, managing the club's finances, budgeting, and financial planning for the tenure.

PROJECTS

- **Banking Management System.** A 15,000-line console banking system in C with concurrent sessions, a live stock-market simulator with quantitative analytics, a four-heuristic fraud engine, real-time messaging, and PIN and 2FA authentication. *[C, Win32 API, Multithreading]* github.com/AmeyaBorkar/BankSystem1.7
- **Engram.** Hierarchical memory for LLM agents with coarse-to-fine retrieval, principled decay, contradiction surfacing, and temporal queries. Scored 87.75% on LongMemEval-S (n=500), the first published reproducible result with an open-weight model. *[Python, sentence-transformers, NumPy; PyPI: engrampy]* github.com/AmeyaBorkar/Engram
- **LocateVision.** A hybrid image classifier that fuses a ResNet-50 CNN and a Swin Transformer through a custom gated-attention layer, then serves the model through a Flask web app with drag-and-drop inference and prediction history. *[Python, PyTorch, Flask]* github.com/AmeyaBorkar/LocateVision
- **GridWatch.** An emergency-dispatch simulation of a grid city that wires roughly 24 advanced data structures (Fibonacci heap, suffix array, BK-tree, segment tree, quadtree, and more) into one system, so each live metric is computed by a different structure. *[C11]* github.com/AmeyaBorkar/GridWatch
- **Fraud Detection Ensemble.** An adaptive TabNet-β-VAE fusion ensemble that closes the uncertainty gap in fraud anomaly detection. Published as first author at ICAIN 2025 (Springer). *[Python, TabNet, β-VAE, scikit-learn]*

Many more on GitHub (github.com/AmeyaBorkar), including OS kernels, finance tools, ML research, and full-stack web apps.

PUBLICATIONS & PATENT

- **Adaptive TabNet-β-VAE Fusion Ensemble Closes Uncertainty Gap In Fraud Detection**, First Author, ICAIN 2025, published by Springer. link.springer.com/book/9783032249289
- **EdgeCAAI-Net: Artist-Invariant Network for On-Device Music Genre Classification**, ICICI 2026 (4th Intl. Conference on Inventive Computing and Informatics), in press.
- **Patent filed** on VeridianOS, covering hypervisor-based OS isolation using CPU virtualization extensions.

OUTSIDE THE TERMINAL

Powerlifting, MMA, motorcycling, swimming, badminton, tabla and piano, and beatboxing.