

ANUP MAZUMDAR

Full-Stack Developer | Data Science & ML Engineer

Bokaro, Jharkhand, India • +91-9693827379 • thezeroanup0@gmail.com
[linkedin.com/in/anup-mazumdar-1033b5321](https://www.linkedin.com/in/anup-mazumdar-1033b5321) • github.com/anupmazumdar

PROFESSIONAL SUMMARY

Full-stack developer and data science engineer with hands-on experience building and deploying production-grade web applications and ML pipelines. Proficient in TypeScript, JavaScript, Python, React.js, Next.js, Node.js, PostgreSQL, and Docker. Experienced in REST API design, NLP, EDA, feature engineering, and model evaluation. Completed an ML internship deploying classification models and OWASP-based security assessments. Building GraminBharat — a scalable multi-service super-app targeting 650,000+ rural villages in India. Actively seeking internship roles in full-stack web development or data science.

TECHNICAL SKILLS

Languages: Python, TypeScript, JavaScript (ES6+), PHP, SQL, HTML5, CSS3

Frontend: React.js, Next.js 14, Tailwind CSS, Bootstrap, Responsive Design, Expo (React Native)

Backend: Node.js, Express.js, FastAPI, REST API, JWT Authentication, Microservices, API Gateway

Data Science & ML: Scikit-learn, Pandas, NumPy, Matplotlib, Seaborn, NLP, EDA, Feature Engineering, Model Evaluation, Data Pipelines, LLM Integration (Google Gemini Pro, OpenRouter API)

Databases: PostgreSQL, MySQL, MongoDB, Redis, Elasticsearch, SQLite

Cloud & DevOps: Docker, Kubernetes, GitHub Actions, CI/CD, Vercel, GCP, Git, Agile / Scrum, Serverless

Security: OWASP Top-10, Vulnerability Assessment, Network Security, Ethical Hacking

Tools: VS Code, Jupyter Notebook, Google Colab, Postman, Linux, Jira

WORK EXPERIENCE

Machine Learning & Web Development Project Intern | **Briztech Infosystems** Apr 2025 – Jun 2025

- Developed and deployed 2 ML classification models using Python and Scikit-learn, achieving 15% accuracy improvement over baseline via feature engineering and hyperparameter tuning.
- Built full-stack responsive web features with HTML5, CSS3, JavaScript, Bootstrap, and PHP backend; optimized SQL queries reducing average page load time by 30%.
- Performed EDA on training datasets using Pandas and NumPy — handled missing values, outlier detection, and categorical encoding to build clean data pipelines.
- Wrapped final ML model in a FastAPI REST endpoint; documented precision, recall, and F1-score metrics for stakeholder reporting.
- Conducted OWASP Top-10 vulnerability assessments; documented XSS and SQL injection findings with proposed mitigations.
- Collaborated in an Agile team of 5 engineers via Git, GitHub pull requests, daily standups, and sprint planning.

PROJECTS

GraminBharat — Rural Super-App for Bharat — Next.js 14, TypeScript, React Native, Node.js, PostgreSQL, MongoDB, Redis, Docker, Kubernetes, Razorpay (2026 – Present)

- Architecting a full-stack super-app with 8 service verticals — e-commerce, telemedicine, agritech, education, travel, food delivery, cab booking, and real estate — targeting 650,000+ underserved villages.
- Monorepo with npm workspaces: API Gateway (port 3000), Auth Service (port 3001), and 11 microservices; containerized via Docker with Kubernetes orchestration.
- Built RESTful API endpoints with Node.js and Express powering dynamic content across 15+ pages; implemented JWT-based authentication and role-based admin dashboard.
- Implemented 12-language localization with voice input via browser Web Speech API, improving accessibility for low-literacy rural users.
- Integrated digital wallet, micro-savings, and crowdfunding with government scheme APIs (NABARD, PMJAY, IFFCO, SBI); CI/CD via GitHub Actions.

TalentAI — AI-Powered Recruitment Agent — *React.js, Tailwind CSS, Node.js, Google Gemini Pro, GCP, JWT* (2026 – Present)

- Built an AI recruitment platform automating candidate screening and job-matching using NLP techniques, reducing manual screening effort by up to 60%.
- 7-stage candidate assessment pipeline with Google Gemini Pro LLM integration; Career Roadmap feature added via `/api/career-roadmap` endpoint.
- Component-driven React.js frontend with sub-500ms AI response rendering; JWT + Bcrypt security; GCP storage.
- Deployed on Vercel with GitHub Actions CI/CD, reducing deployment time to under 2 minutes per release.

Online Digital Corp — Multi-Service E-Commerce Platform — *Node.js, Express.js, OpenRouter API (GPT-4o, Claude, Gemini), Vercel* (2026 – Present)

- Architected a multi-service web platform with 12 service categories, user authentication, admin product management, and full shopping cart with order management.
- Integrated AI Concierge chatbot via OpenRouter API through a secure Node.js server-side proxy, preventing client-side API key exposure.
- Optimized front-end with lazy loading and minified assets; Vercel serverless routes supporting 3 simultaneous AI model endpoints.

iSkool — Learning Management System (LMS) — *PHP, MySQL, Bootstrap, HTML5, CSS3, JavaScript* (2024 – 2025)

- Built a full-featured LMS with user registration, course purchase, content delivery, and progress tracking using PHP MVC architecture.
- Designed normalized relational schema with 8+ tables; query indexing reduced average response time by 40%.

ClassVision — AI-Powered Smart Attendance & Classroom Analytics — *Python, FastAPI, OpenCV, dlib, DeepFace, MediaPipe, SQLite, React.js, JWT* (2025 – Present)

- Built a production-grade AI attendance platform replacing manual roll calls with automated face recognition (dlib ResNet, 99%+ accuracy); eliminates proxy attendance and tracks real-time student engagement via MediaPipe facial landmarks and DeepFace emotion detection.
- Architected full-stack platform: FastAPI REST backend, LAN-first deployment with cloud backup, role-based access control (teacher/admin/student), JWT + AES-256 security, and auto PDF/Excel report generation after every session.
- Implemented attention tracking (head pose + gaze direction via 468 facial landmarks) and class mood scoring via aggregate emotion analysis — providing teachers real-time classroom engagement dashboards with 2-minute distraction alerts.

GreenBlock — IoT Smart Building OS + AgriMode — *Raspberry Pi 4, Arduino Uno, FastAPI, IsolationForest, MQTT, InfluxDB, Twilio, Python, Scikit-learn* (2025 – Present)

- Designed a retrofittable IoT node (Raspberry Pi 4 + Arduino Uno, 16 sensors, ₹10,000+) transforming any building into a self-monitoring energy-efficient system — submitted to SICF Innovate 2.0 (Category 1: Decentralized Clean Energy & Urban Infrastructure).
- Built two-tier hardware architecture: Arduino Uno as 16-sensor JSON hub (2s polling) + Raspberry Pi 4 running FastAPI, MQTT broker, IsolationForest anomaly detection, and Prophet ML for 24hr solar yield forecasting; Twilio WhatsApp alerts fire within 30 seconds of fault detection.
- Implemented dual-use AgriMode: toggling one switch repurposes identical hardware for greenhouse climate monitoring, auto-irrigation cancellation on rain (HW-028), soil moisture-driven pump control, and CO2 ventilation — targeting India's ₹70,000 crore agri-tech market at 10x lower cost than enterprise BMS alternatives.

HydroShield 2.0 — Gravity-Drip Passive Cooling Panel System — *Terracotta, PVC, Drip Irrigation, Evaporative Cooling, Zero Electronics* (2025)

- Designed a fully passive, zero-electricity wall-mounted cooling panel combining agricultural drip irrigation and terracotta evaporative architecture — submitted to SICF Innovate 2.0; achieves 5–8°C temperature drop using gravity-fed 20L jar, no pumps, sensors, or grid connection required.
- Built from locally sourced Jaipur terracotta tiles, river sand, jute mesh, and standard PVC — total unit cost ₹1,770 for a 3-panel room vs ₹35,000–45,000 for 1-ton AC; 97% lower 5-year cost with zero carbon footprint and full power-cut resilience.
- Engineered clip-on retrofit bracket enabling tool-free installation on any existing wall in under 1 hour; documented complete FMEA risk analysis and 4-phase scalability roadmap from single-room prototype to community rainwater-integrated deployment.

EDUCATION

Master of Computer Applications (MCA) — Computational Science *Oct 2025 – Present*
University of Engineering & Management (UEM), Jaipur, Rajasthan

Bachelor of Computer Applications (BCA) — CGPA: 8.29/10 *Sep 2022 – Sep 2025*
K. B. College, Bermo, Bokaro, Jharkhand

- Graduated Top-3 across all 6 semesters. Coursework: Data Structures, DBMS, Web Technologies, Statistics, Computer Networks, Software Engineering.

CERTIFICATIONS

- Google Cybersecurity Foundation — Google (2024)
- Introduction to Data Analytics — IBM / Coursera (2024)
- Python (Basic) — HackerRank (2024)
- Discrete Mathematics for Computer Science — University of Michigan, Coursera (2025)
- Basics of Entrepreneurship — Coursera (2026)
- Core Java Specialization — Coursera (2026)

ACHIEVEMENTS & ACTIVITIES

- NSS National Debate Competition Winner — Represented 18 states at NIC Camp, Haryana (2024).
- Academic Excellence — Top-3 rank across all 6 semesters of BCA; CGPA 8.29/10.
- ACM Student Chapter Member — UEM Jaipur; 3rd Rank at HackUEM 5.0 hackathon.
- Open Source Contributor — Maintained public GitHub repositories for GraminBharat and TalentAI with documented contribution guidelines, changelogs, and MIT licensing.
- SICF Innovate 2.0 — 1st rank at SICF Innovate 2.0 at UEM, Jaipur For using smart innovation HydroShield 2.0 which uses IV-Fusion set, low cost installation ₹1,770, can be installed in built buildings.