Nirmit Pujara

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Education

Vellore Institute of Technology (VIT) — Vellore, India
Master of Computer Applications (MCA) — *2025 – 2027 (Expected)*

M.K. Institute of Computer Studies (MKICS), Veer Narmad South Gujarat University — Bharuch, India
Bachelor of Computer Applications (BCA) — CGPA: 8.8 / 10 — *2021 – 2024*

Research Experience

Checking Whether AI Models Have Really "Forgotten" Patient Data — VIT Vellore
MCA Capstone Research Paper | Guide: Prof. Ramalingam M — *2026*
- When a patient asks for their data to be deleted, the AI model must forget it too, and a statistical test checks that it did. I found the standard test wrongly flags correct deletions, worst for small patient groups, and designed a simple fix. Tested on four skin-image datasets.

Fairness-Aware Machine Unlearning — VIT Vellore
MCA Dissertation Research | Guide: Prof. Ramalingam M — *2026 – Present*
- Studying how to make a model forget specific data without retraining it from scratch, and without the forgetting making it unfair to some patient groups. A correction step cut that unfairness by more than half. Tested on skin-lesion images and hospital records.

Deep-Learning Rainfall Forecasting for Cyclone Kyarr — VIT Vellore
Independent Research Project | Disaster Management / Atmospheric Science — *2025 – 2026*
- Trained an AI model to forecast rainfall a few hours ahead during a real cyclone, and checked it against satellite data it had never seen. It beat standard simple forecasts at 9–12 hours ahead.

Freelance Software Development

Self-Employed — Remote
Freelance Software Developer — *2025 – Present*
- **Hisaab Kitaab** — billing desktop app for repair shops (Electron, React) with UPI QR payments, barcoded job slips, Firebase sync, and auto-updating releases; in active daily use by 3 paying clients (transaction volume under NDA).
- **Property Manager** — rental-property tracker shipped from one React codebase as a Windows app (Electron) and an Android app (Capacitor), with Firebase cloud sync, Google Drive document storage, and push notifications.
- **Parts Management System** — inventory & sales app (React, Vite, Tailwind CSS, Electron) for an electronic-components retailer, replacing spreadsheets with invoicing, purchase orders, supplier payments, and low-stock alerts.
- **Backup Service** — Windows backup tool built for a reseller to sell to its own customers (Go, restic, rclone, Python/FastAPI): encrypted incremental backups to a drive or Google Drive, one-click restore, failure alerts, signed licensing, and approval-only signed updates.

Projects

AI Smart Duplicate File Finder | *Python, PyTorch, CLIP, FAISS, Sentence-Transformers* — SanDisk Hackathon — Finalist
- Led a 3-person team building a duplicate-file detector that matches documents (Sentence-Transformers), images (CLIP, perceptual hashing) and audio (Chromaprint), with FAISS for fast search across large file sets.
- Added a scoring engine that recommends which duplicate to keep, and a safe-delete flow (Recycle Bin only, never permanent).

Stock Signals | *Python, scikit-learn, FastAPI, pandas* — 2026
- NSE stock-signal app that sends buy/sell alerts and tracks the profit and loss of its own signals (no trades placed), with 10-year backtests. A machine-learning filter I tested did no better than chance, so I left it out.

VoiceBridge | *Python, faster-whisper, Windows* — 2026
- Hands-free voice typing for Windows: transcribes speech offline and types it into whichever app is open. Public on GitHub.

YouTube Automation Pipeline | *Python, FFmpeg, YouTube API* — 2026
- Makes a short video end to end: picks a trending topic, writes and fact-checks the script with free LLMs (with fallback providers), adds voice-over, footage, captions and a thumbnail, then uploads it.

Technical Skills

Languages: Python, Java, C/C++, Go, JavaScript/TypeScript, Dart, SQL
Frameworks & Libraries: React, Next.js, Electron, Flutter, Capacitor, FastAPI, Tailwind CSS
Machine Learning: PyTorch, scikit-learn, pandas, Sentence-Transformers, FAISS, CatBoost, LightGBM
Databases & Cloud: Firebase, SQLite
Tools: Git/GitHub, Vite/Electron-Vite, REST APIs, LaTeX, Linux

Leadership & Extracurricular

SanDisk Hackathon — Finalist & Team Lead — led a team of 3 (chosen by teammates) to the final round; earned a certificate and goodies.
Student Representative, SOLOMON-IT — coordinated 50+ volunteers on the fest's micro-management team as on-ground logistics contact.
Panelist, "Shaping Young Minds" (AIMA) — selected to question senior leaders, incl. a former KPMG India CEO.