

SHREYAS FEGADE

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B.Tech Computer Science & Engineering · Manipal University Jaipur · 2025–2029 · CGPA 8.8

EDUCATION

B.Tech — Computer Science & Engineering — Manipal University Jaipur 2025 – 2029 (Expected)

CGPA: 8.8 aggregate **Coursework:** C Programming, Python & Data Manipulation, DSA, Computer Systems & Networking, Logic Design, Cybersecurity

TECHNICAL SKILLS

Languages	Python, C, JavaScript, TypeScript, Bash
Frameworks & Runtime	Electron, React 19, Next.js, FastAPI, Flask, Node.js, Zustand
Data & ML	NumPy, Pandas, scikit-learn, hmmlearn, yfinance, D3.js, HTML5 Canvas API
Systems & Tools	Git, SQLite (WAL), Multi-Process IPC Architecture, Win32 ctypes, Linux, node-pty, chokidar
Security	Burp Suite, Wireshark, Nmap, Shannon Entropy Analysis, Network Security (CEH v11 coursework)

PROJECTS

Cortex — Unified AI-Native Developer Workspace 2026

Electron · React 19 · TypeScript · SQLite (WAL) · node-pty · D3.js · [GitHub](#)

- Engineered a two-process Electron workspace fusing a native PTY terminal, Chromium browser, file explorer, and multi-provider LLM assistant (OpenAI, Anthropic, Google, DeepSeek, Ollama) behind 82+ typed, context-isolated IPC channels — a context selector pipes terminal output, file diffs, and browser history into prompts, with passive telemetry in WAL-mode SQLite driving a D3.js productivity dashboard.

REGIME — Market Regime Intelligence 2026

Python · FastAPI · hmmlearn · HTML5 Canvas API · GSAP · yfinance · [GitHub](#) · [Live demo](#)

- Built a 4-state Gaussian HMM over daily OHLCV that classifies equities into Bullish, Bearish, Crisis, and Accumulation regimes, with a post-training state labeller that holds the labels stable across random EM restarts and a walk-forward, out-of-sample backtest; renders NSE/BSE and US tickers through a zero-dependency Canvas engine, full pipeline in ~1.1s.

Knowledge Mapper — PDF-to-Concept Graph Engine 2025

Next.js 15 · React 19 · TypeScript · FastAPI · PyMuPDF · SQLite · [GitHub](#) · [Live demo](#)

- Built a three-stage LLM pipeline (global understanding → concept extraction → topology inference) wrapped in deterministic scaffolding — dedup, cycle-breaking, edge-capping — that cuts relationship inference from $O(N^2)$ to a bounded top-150 batch; renders the graph in a from-scratch Canvas force simulation with spatial-hash hit testing that settles 200 nodes and idles near 0% CPU.

Forensics — Browser-Native File Intelligence 2026

Vanilla JS · DataView / ArrayBuffer · Leaflet · HTML5 File API · [GitHub](#) · [Live demo](#)

- Hand-rolled a binary EXIF/TIFF parser, GPS mapper, Shannon-entropy analyser, and steganography detector that run entirely client-side — zero uploads, zero server calls, full forensic report in ~200ms — shipped as a zero-config static site.

Chronicle — Passive Focus Intelligence 2026

Python · Win32 ctypes · FastAPI · SQLite (WAL) · D3.js · [GitHub](#)

- Built a Windows tray daemon that samples foreground-window state through raw Win32 ctypes with hardened handling of flaky OS APIs, and computes a Shannon-entropy Focus Score for attention fragmentation — with session stitching and TTL eviction on a WAL-mode SQLite backend.

Unbored — Decision-Paralysis Recommendation Engine 2026

React · TypeScript · FastAPI · Gemini API · TMDB · AniList · [GitHub](#) · [Live demo](#)

- Designed a multi-factor scoring engine over TMDB and AniList catalogs (genre, mood, runtime, and diversity weights) layered with Gemini-powered contextual reasoning, delivering one confident recommendation end-to-end in under 4 seconds.

EXPERIENCE & ACTIVITIES

Junior Working Team — Projects & Research — ACM Student Chapter, MUJ 2025 – Present

Contribute to the chapter's project & research team, building and reviewing applied-computing projects alongside senior members.

GirlScript Summer of Code (GSSoC) Extended — Open Source Contributor 2026

Ranked in top 1% of ~50,000 participants in the world's largest open-source builder program; merged 36 pull requests across multiple repositories.

CERTIFICATIONS & COURSEWORK

CEH v11 Curriculum (CIS 404) · EC-Council University: Ethical hacking methodology, network recon, OSINT, vulnerability analysis, penetration testing.

DataCamp Python & Data Science Track: Intro to Python, Intermediate Python, Data Manipulation with Pandas, Netflix Movies guided project.