# Diwakar Mishra

+91 8294785015 | Delhi, India
diwakarmishraemail@gmail.com | Portfolio | GitHub | LeetCode | LinkedIn

## SUMMARY

B.Tech CSE-AI student (CGPA 9.43) who builds and ships live full-stack applications - recommendation engines, graph algorithms, custom scoring pipelines, and LLM integrations, all deployed and publicly available.

## EDUCATION

**Maharaja Agrasen Institute of Technology**, Delhi — 2024 – 2028
B.Tech in Computer Science & Engineering (Artificial Intelligence) — CGPA: 9.43/10.0

**PD Model School** — Class 12 – 94%
**St. Karen's School** — Class 10 – 96.2%

## SKILLS

- **Languages:** C++, C, SQL, JavaScript (ES6+), TypeScript
- **Frontend:** React.js, Next.js, Tailwind CSS, Canvas API, D3/d3-force, Three.js
- **Backend:** Node.js, Express.js, Supabase (PostgreSQL), MongoDB, REST API Design, JWT, OAuth 2.0
- **Tools & Testing:** Git, GitHub Actions (CI), Jest, Vercel, Netlify
- **AI:** LLM Integration, OpenRouter, Gemini API

## PROJECTS

**Starweave** - Interactive Influence Graph for Independent Music (Live Demo) | (GitHub)
**Tech Stack:** Next.js, TypeScript, react-force-graph, d3-force, Canvas API, Vercel

- Designed a citation-integrity data model over 297 artists and 1,053 influence edges - influence isn't audio similarity, so every link is sourced: 908 name a source, 562 the artist's own words, plus 30 recorded denials
- Built a Dijkstra search weighted by citation quality, cutting poorly-sourced links on the average path from 70% to 11%, with paths averaging about one extra artist
- Laid out the genre lineage map with heavy-path decomposition and greedy interval-graph colouring, extending each interval by its label width so packed rows never collide
- Held 60fps on a continuously-repainting canvas at 297 nodes by caching each node glow as an offscreen sprite instead of rebuilding gradients per frame

**Arthouse Atlas** - Curated Discovery Platform for World Cinema (Live Demo) | (GitHub)
**Tech Stack:** React.js, Node.js, Express.js, MongoDB, Tailwind CSS, JWT, Google OAuth 2.0, TMDB API

- Built a full-stack discovery platform for 497 films across directors, studios, and 12 cinematic movements, with region-filtered streaming availability via TMDB
- Built a recommendation engine scoring 200 candidates per request using behavioral weights (favorites 3x, watched 1.5x, watchlist 1x) across mood, directors, movements, and decades
- Engineered six explainable film-scoring systems using popularity inversion, auteur status, and critical consensus; precomputed at data load for fast filtering

**CareerSaarthi** - AI-Driven Career Accelerator & Mock Interview Platform (Live Demo) | (GitHub)
**Tech Stack:** React.js, Node.js, Supabase (PostgreSQL), Web Speech API, OpenRouter (GPT-4o-mini), Gemini API

- Engineered a real-time voice interview coach with live Web Speech transcription and automated scoring for clarity, STAR structure, and keyword density, persisted to Supabase
- Built a resume analyzer parsing uploaded PDFs with GPT-4o-mini for ATS scoring and keyword-gap detection
- Built resilient LLM integrations across 6 career tools, proxying all OpenRouter/Gemini calls server-side to keep API keys out of the browser, with free-model fallback and rotating keys on rate limits

## ACHIEVEMENTS

- **LeetCode Contest Rating 1800+ (Top 7.47%):** 350+ problems solved.
- **Flipkart GRiD 8.0 – Semi-Finalist:** Cleared resume screening and two coding rounds of Flipkart's national engineering competition.
- **CodeX Hackathon Winner:** Led a team of 4 to the Neighbourly Choice Award at MAIT for CareerSaarthi.