



ARYAN MALHOTRA

SOFTWARE ENGINEER

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EDUCATION

Year	Degree/Exam	Institute	CGPA/Marks
2027	B.TECH	IIT Kharagpur	8.45/10
2023	CBSE	D.L.D.A.V. Model School	97.2%
2021	CBSE	D.L.D.A.V. Model School	96.8%

INTERSHIPS

Software Engineering Intern | Lloyds Metals and Enegy Limited | On-site January, 2026 – February, 2026

- Contributed to building an internal **HR dashboard** using **MERN** to manage employee performance, attendance, and salary data
- Implemented backend data modules in Node.js and MongoDB to structure employee records and enable reliable retrieval of HR metrics
- Assisted in building React dashboard components for tracking employee activity, improving accessibility of internal workforce data
- Tested application modules using mock datasets to validate API responses, data integrity, and dashboard workflows before deployment

Software Development Intern | JSW Group | On-site December, 2025 – January, 2026

- Contributed to development of **enterprise workflow automation and analytics platform** to be used for operational decision making
- Developed React UI components to visualize workflow states and analytics dashboards, enabling clearer tracking of operational processes
- Assisted in backend integration using Node.js and MongoDB to support structured data flow across workflow automation modules
- Tested platform components using sample datasets to **identify integration bugs**, ensuring consistent data propagation across services

Software Development Intern | 365 Bizness | Remote August, 2025 – October, 2025

- Developed interactive finance automation dashboards for **Ambill.ai**, utilizing Next.js SSR to optimize load times for real-time data
- Built the B2B web interface for **DemandFarm**, implementing responsive UI components that streamlined account management workflows
- Engineered the **Knight Kavalier e-commerce** platform using MERN stack, integrating authentication, cart logic, and payment gateways
- Optimized the **Akarsa agency** portfolio website for SEO and Core Web Vitals, achieving high performance scores via Next.js Server Actions

PROJECTS

File Compression Tool | Self Project | (Java, Maven, Huffman Coding, LZW Algorithm) December, 2025

- Developed a file compression tool in Java using Huffman Coding and LZW algorithms, reducing file sizes for optimized storage
- Engineered lossless data compression logic via precise **byte-level mapping**, ensuring **100%** data integrity during zip and unzip processes
- Utilized Maven for dependency management to build a **cross-platform application** compatible with macOS, Linux, and Windows OS
- Implemented LZW algorithm to perform multi-byte to binary sequence mapping, removing the overhead of saving extra dictionaries

Social Media Feed Ranking System | (MongoDB, Express.js, React, Node.js, Priority Queue/Max Heap, HashMaps) November, 2025

- Built a social media feed ranking system generating personalized timelines by ranking followed users' posts by relevance and recency
- Developed a React feed UI supporting posts, likes, and follows, with client-side state updates reflecting dynamically ranked timelines
- Implemented Node.js and MongoDB APIs to store posts, likes, follow graphs, etc. enabling server-side feed scoring, controlled retrieval
- Replaced $O(N \log N)$ sorting over N candidate posts with server-side heap-based top-K selection (K feed items), achieving **$O(N \log K)$**

Delhi Metro Route Planner | (Java, Dijkstra's Algorithm, Graphs, Min-Heap, HashMap, ArrayList) June, 2025

- Constructed a CLI-based Delhi Metro app utilising Dijkstra's algorithm to compute shortest path and estimated fare across **20+** stations
- Built Java Min-Heap and graph model, computing shortest metro paths interactively with **$O(\log V)$** heap steps inside Dijkstra's algorithm
- Crafted ASCII-style metro map covering 21 stations, using Java methods to display intuitive routes across platforms with tabular layout
- Developed fare and time estimator leveraging HashMap and ArrayList to compute multi-stop metro routes efficiently with clear Java logic

COMPETITIONS

Smart India Hackathon | AyurSutra- Panchakarma Therapy Management Software August, 2025

- Developed AyurSutra, an AI-powered MedTech platform streamlining Panchakarma therapy scheduling and patient management
- Engineered scalable backend with **Django & Postgres**, using **Celery+Redis** for async scheduling, enabling clinics to serve **2x** patients
- Implemented ML-based Dosha assessment using **PyTorch** and **FastAPI** to deliver personalized therapy plans and recommendations
- Designed a gamified wellness tracker using **React Native**, boosting patient adherence via real-time progress monitoring and streaks

SKILLS AND EXPERTISE

Languages: C++, Python, Java, JavaScript, TypeScript, SQL **Frameworks & Databases:** NumPy, Pandas, MongoDB, MySQL, SQLite

Web & Backend: Node.js, Express.js, React, Next.js, Django, Flask, REST APIs **Skills:** Data Structures & Algorithms, OOP

CERTIFICATION

Google Student Upskilling Launchpad | Foundations of User Experience(UX) Design by Google | IIT Guwahati Summer Analytics 2024(DS;ML)

AWARDS AND ACHIEVEMENTS

- Secured an All India Rank of **6078** in Joint Entrance Examination(JEE) Advanced 2023, placing in the **top 3%** of 2.2 lakh total candidates
- Ranked among the **top 1.5%** of candidates in the Joint Entrance Examination(JEE) Mains 2023, taken by over **12 lakh total applicants**

POSITIONS OF RESPONSIBILITY

Governing Batch Member | Technology Filmmaking and Photography Society April, 2025 – Present

- Directed 2 fictional short films with a team of 10+, leading end-to-end execution and delivering under deadlines with 2K+ YouTube views
- Mentored 7 freshers to independently create a short film by managing logistics, planning, and knowledge transfer pre/post production

EXTRA CURRICULAR ACTIVITIES

- Won Gold at the 2019 State-Level Taekwondo Championship, securing 1st rank in the under-17 boys category among regional finalists
- Won Gold in filmmaking and photography as a part of filmmaking team representing IIT Kharagpur at Inter IIT Social and Cultural Meet 8.0