

SUMMARY

Backend and systems software developer. Comfortable building full-stack web applications, with primary focus on backend and system design. Adept at solving complex problems, collaborating in teams, and delivering client-focused digital solutions.

EDUCATION	
SRM Institute of Science and Technology	Chennai
Masters in Computer Applications (MCA)	2024-current
Current GPA: 9.65/10.0	
Lady Brabourne College, Calcutta University	Kolkata
Bachelor of Science (B.Sc. Honours) in Physics	2021-2024
Final GPA: 7.4/10.0	
Delhi Public School, Kanpur	Kanpur
CBSE Senior Secondary Certificate	2019-2021
Score: 96.2%	

- EXPERIENCE AND PROJECTS
- Lohia Aerospace – Internship (Python, PyQt5, Pandas, Matplotlib, NumPy)
- Developed a full-featured PyQt5 GUI, streamlining lab data analysis and visualization workflows;f to replace manual Excel-based processes, reducing reporting time from 3 - 4 hours to under 10 minutes.
  - Automated end-to-end data integration and validation using Pandas and NumPy, enabling seamless merging of multiple Excel sheets, eliminating human error and reducing manual effort.
  - Engineered a dynamic reporting and modeling module in Matplotlib that supports parameter-based graph customization, allowing users to generate fully tailored reports and analytical plots in one click.
- Video Conferencing App (React, WebRTC, TailwindCSS, Socket.IO, FastAPI, PostgreSQL)
- Built an end-to-end video conferencing application to understand real-time communication systems and WebRTC workflows.
  - Implemented WebRTC peer connections with offer/answer exchange, ICE candidate handling, and Socket.IO–based signaling for peer lifecycle management.
  - Developed a FastAPI backend with JWT authentication and PostgreSQL for user management and meeting coordination.
- jobmngnr (Python, threading, heapq, IPC using sockets)
- Built a lightweight in-memory job scheduler using Python threads and priority queues for time-based task execution.
  - Implemented background execution with safe concurrency and socket-based inter-process communication.
- Coverage Visualiser (React, Tailwind CSS, Vercel)
- Visualized and compared drone area coverage algorithms through interactive simulations.

- ACHIEVEMENTS
- Ranked 4th in All-India Web Scraping Competition (built high-efficiency data extractor).
  - 150+ LeetCode problems solved with regular practice in problem solving.
  - Selected as IQAC Council Member (Physics Dept.), led initiatives impacting 70+ students.

- TECHNICAL SKILLS
- Languages: Python, Java, JS, SQL
  - Backend: FastAPI, Django
  - Frontend: React, Tailwind CSS
  - Data/Tools: Pandas, NumPy, AWS (EC2, CI/CD), Git, vite, venv

- CERTIFICATIONS
- NPTEL- Design and Engineering of Computer Systems, Database Management System, Programming Data Structures and Algorithms in Python
  - AWS Cloud Foundations (AWS Academy)