

PROMA RIDDDHI DAS

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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

Masters in Computer Applications (MCA)

Chennai

2024-current

Current GPA: 9.65/10.0

Lady Brabourne College, Calcutta University

Bachelor of Science (B.Sc. Honours) in Physics

Kolkata

2021-2024

Final GPA: 7.4/10.0

Delhi Public School, Kanpur

CBSE Senior Secondary Certificate

Kanpur

Score: 96.2%

2019-2021

EXPERIENCE AND PROJECTS

Lohia Aerospace – Internship (*Python, PyQt5, Pandas, Matplotlib, NumPy*)

- Developed a full-featured PyQt5 GUI, streamlining lab data analysis and visualization workflows; 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.

jobmgr (*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)