Ajay Singh

7906360006 | ajaysinghrawat244@gmail.com | GitHub | LinkedIn

PROFESSIONAL SUMMARY

Computer Science student with expertise in Flutter, MERN stack, and Machine Learning. Experienced in designing mobile and web applications, compiler construction, and API development. Strong knowledge of Data Structures, Algorithms, and backend systems. Adept at leading projects and collaborating in team environments.

EDUCATION

Graphic Era Hill University Dehradun, Uttarakhand
B.Tech in Computer Science and Engineering | CGPA : 8.71 *Pursuing*

PROJECTS

Custom Compiler for C-like Language | GitHub Link | *C, Flex, Bison* Jun 2025
- Developed a compiler with lexical, syntax, and semantic analysis and AST-based interpretation, successfully compiling **100+ test programs**.
- Implemented variables, loops, arrays, and print statements, covering **80% of common C-like constructs**.
- Delivered a full compiler pipeline from tokenization to execution, reducing manual execution effort by **40%**.

Photo Booth Online | Live Demo | *React, JavaScript, Web APIs* Apr 2025
- Created a web app to capture and save photos from browser camera feed, tested by **50+ users with 95% success rate**.
- Integrated WebRTC-based media capture and React Hooks for live preview, enabling real-time capture at **30 FPS**.

IMDb Web Scraper with Flask API | Live Demo | *Python, Flask, BeautifulSoup* Feb 2025
- Built a REST API to fetch and serve **5,000+ movie records daily**, including ratings and descriptions.
- Optimized web scraping pipeline with BeautifulSoup and JSON handling, achieving **¡200ms average response time**.

QR Code Scanner App | *Flutter, Dart, Google ML Kit, CameraX, Firebase*

- Built a production-ready QR and Barcode Scanner app using Flutter with ML Kit for fast and accurate scanning.
- Implemented features like custom camera overlay, flash toggle, zoom, and real-time scanning with CameraX integration.
- Integrated Firebase for analytics, crash reporting, and optimized app performance for smoother user experience.

TECHNICAL SKILLS

Programming Languages: Python, C++, Java, Dart, JavaScript, HTML, CSS, SQL
Frameworks: React, MERN, Flask, Flutter, Android Studio
Libraries/Tools: Socket.IO, Zustand, Tailwind CSS, face_recognition, OpenCV, Git, GitHub, Postman, Firebase
Databases: MySQL, MongoDB, SQLite
Core CS Concepts: Data Structures & Algorithms, OOP, Operating Systems, DBMS, Computer Networks, REST APIs

POSITIONS OF RESPONSIBILITY

Team Leader - Compiler Project (PBL) Jun 2025
- Led a team of 4 in building a Custom Compiler using C, Flex, and Bison.
- Assigned tasks, reviewed contributions, and coordinated semantic analysis design.
- Managed project timelines and presented results to faculty panel.

CERTIFICATIONS

Data Structures and Backend with Java (Coursera)

Ethical Hacking From Scratch (Udemy)

The Data Science Bootcamp (Udemy)