

# RACHIT RAWAT

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## Education

### Graphic Era Hill University, Dehradun

B. Tech in Computer Science & Engineering

**2022 - present**

8.43/10 CGPA

### Army Public School, Meerut

CBSE- 12th- Science

**2020 - 2021**

89.8/100 percentage

### Army Public School, Meerut

CBSE- 10th

**2018 - 2019**

94.1/100 percentage

## Projects

### 1. Movie Recommendation System | (MACHINE LEARNING, Python):

- Designed and implemented a **content-based movie recommender** using the TMDB 5000 dataset.
- Applied **data preprocessing** steps such as text cleaning, stopword removal, stemming, and feature engineering of genres, keywords, cast, crew, and overview.
- Used **CountVectorizer** to convert textual metadata into vector representations suitable for similarity computations.
- Computed **cosine similarity scores** between movies to generate top 5 recommendations.
- Optimized performance by precomputing the similarity matrix for faster retrieval during user queries.

### 2. Employee Management System | (HTML, CSS, JS, Flask (Python), SQLite):

- Developed a secure CRUD web application for managing employees using **Flask (Python)** backend and **SQLite** database.
- Implemented **JWT-based authentication** with admin-only user registration for controlled access.
- Designed a simple frontend interface with **HTML, CSS, and JavaScript**, storing JWT tokens in localStorage for session management.
- Built and consumed **RESTful APIs** for creating, updating, deleting, and viewing employee records.
- Performed **API testing and debugging using Postman**, ensuring reliability and correctness.

### 3. Mini Compiler | (YACC, LEX, C, MAKEFILE):

- Engineered a compiler in **C** leveraging **Flex (Lex)** for tokenization and **Bison (YACC)** for grammar parsing.
- Designed and integrated a **symbol table** for identifier management and implemented **semantic analysis** for type safety.
- Implemented support for **arithmetic and relational operators, conditional control flow (if/else), and print statements**.
- Enforced **error handling** for syntax/semantic violations, ensuring robust compilation.
- Automated build and execution pipeline with a **Makefile**, enabling reproducible compiler runs on sample programs.

## Skills

**Programming Languages:** C, C++, Python.

**Web Development:** HTML, CSS, JavaScript, ReactJS

**Databases:** MySQL, SQLite.

**Tools:** Git, GitHub (hosted academic projects Like Mini OS and Mini Compiler.)

## Courses And Certifications

- Data Structures & Algorithms – Apna College
- Machine Learning with Python - Coursera
- Salesforce Agent blazer Champion Program (Completed 8-Week Virtual Internship Program (May 2025-July-2025))