# Amandeep Singh

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## **EDUCATION**

#### **CHANDIGARH UNIVERSITY**

B.E in Computer Science

August 2023 - June 2027 Mohali, Punjab Cumulative GPA: 8.78 / 10.0

#### NATIONAL DEFENCE ACADEMY

Indian Army Officer Cadet December 2022 - June 2023 Khadakwasla, Pune

# LINKS

Github: github.com/singh-aman23 LeetCode: leetcode.com/singh-aman23 LinkedIn: linkedin.com/in/singh-aman23

#### **CERTIFICATIONS**

- Microsoft Azure Data Fundamentals (DP-900) Score 895/1000
- Al for Entrepreneurship Intel India
- Data Visualization with Python IBM (Coursera)

## SKILLS

#### **PROGRAMMING**

Programming Languages: Java, JavaScript, C/C++, Python Web Technologies :

HTML, CSS, React.js, Next.js, Node.js, Express.js, RESTful APIs

Databases:

MongoDB, MySQL

Machine Learning and Data: scikit-learn, pandas, NumPy, Regression Models

Tools:

Git, GitHub, Postman, JWT, CI/CD (Vercel), Streamlit

#### **COURSEWORK**

Data Structures and Algorithms Object-Oriented Programming Operating Systems Database Management Systems Computer Networks Machine Learning

# PROFESSIONAL SUMMARY

Computer Science undergraduate with a disciplined mindset shaped by experience as an NDA cadet. Passionate about competitive programming, data structures, and algorithmic thinking, with consistent participation on platforms like Codeforces and LeetCode. Skilled in problem-solving, full-stack development, and building efficient solutions. Brings a team-oriented mindset and resilience to both collaborative engineering projects and high-pressure coding challenges.

# **PROJECTS**

#### CPREDICT | PYTHON, STREAMLIT, SCIKIT-LEARN, PANDAS, JOBLIB

Al-based web app that predicts Codeforces rating change using real contest data and ML regression

#### Live Demo | Github

- Developed an **Al-powered web app** that predicts Codeforces rating changes with **84.3%** R<sup>2</sup> score.
- Collected and processed data from 700+ contests, analyzing over 30,000 user rating records via Codeforces public REST API.
- Trained a Random Forest Regressor with MAE ≈ 20.28 and RMSE ≈ 29.82, ensuring low prediction error.
- Deployed using **Streamlit Cloud** with **<100ms model response time** and **>99.9%** uptime.
- Demonstrated a complete **machine learning pipeline**: data scraping, feature engineering, model training, evaluation, and deployment.

# RENTBUDY | REACT.JS, NEXT.JS (API ROUTES), MONGODB, VERCEL

Roommate-finding platform with real-time listings and authentication features.

#### Live Demo | Github

- Built a **full-stack roommate-finder platform** allowing users to post listings and connect with potential roommates in real time.
- Designed a **responsive UI** with React.js, optimized for both mobile and desktop devices.
- Implemented JWT-based authentication with secure route handling and session management.
- Developed a **RESTful API** using **Next.js** and **MongoDB** for backend logic and data persistence.
- Deployed using Vercel CI/CD, achieving 99.9% uptime and <100ms average response time.
- Used by over **50+ test users**, with architecture designed to scale for **1,000+ concurrent users**.

#### **ACHIEVEMENTS**

- Scored 895/1000 in Microsoft Certified: Azure Data Fundamentals (DP-900) Exam
- Secured All India Rank 75 in NDA/NA-I (2022), qualified through UPSC and Services Selection Board
- Top 65 out of 600+ teams at Tekathon 3.0 Smart India Hackathon qualifier