

# Rachit Kumar Singh

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## SUMMARY

Computer Science student specializing in Artificial Intelligence and Machine Learning with practical experience in data analysis, model development, and optimization. Proficient in Python and ML workflows, with a strong foundation in building scalable, real-world AI solutions.

## PROJECT

### Fresh ScanX

Personal Project / Academic Project (Self-Developed) • [freshscanx-frontend.onrender.com/](https://freshscanx-frontend.onrender.com/) • December 2025 – January 2026

- Developed **Fresh ScanX**, an **AI-based fruit freshness detection system** using **deep learning (CNN)**.
- Implemented **data preprocessing, image augmentation, and class balancing** to enhance model performance.
- Trained and fine-tuned models with **hyperparameter optimization** for accurate classification.
- Enabled **real-time predictions** using **mobile camera capture and image upload functionality**.

### Smart Movie Recommendation

Personal Project • [smart-movie-recommendation.onrender.com](https://smart-movie-recommendation.onrender.com) • December 2025 – December 2025

- Developed an **industry-grade hybrid movie recommendation system** delivering **personalized user recommendations**.
- Integrated **collaborative filtering (user-item interaction modeling)** with **content-based similarity algorithms**.
- Applied the **MovieLens 100K dataset** following a **real-world recommendation system pipeline**.
- Deployed a **production-ready recommendation service** using **FastAPI** with an **interactive web interface**.

### AI Dost

Personal Project • [ai-dost.onrender.com](https://ai-dost.onrender.com) • November 2025 – November 2025

- Designed and developed **AI DOST**, an **AI-powered conversational web application** similar to **ChatGPT**, using **Google API integration**.
- Implemented **secure user authentication, real-time chat, and AI-driven response generation**.
- Built **chat history management** and **smart prompt suggestion features** (coding assistance, brainstorming, explanations).
- Developed a **responsive, dark-themed UI** with a focus on **UX optimization and performance**.
- Delivered a **scalable, production-ready AI platform** enabling **fast, accurate, and user-centric interactions**.

### Sugar Sense

College Project – Kalinga Institute of Industrial Technology • [sugar-sense.onrender.com/](https://sugar-sense.onrender.com/) • October 2025 – October 2025

- Developed a **diabetes risk prediction web application** using **Machine Learning and PyTorch**.
- Implemented **data preprocessing pipelines** with **feature scaling and label encoding**.
- Built a **Flask-based REST API** for **real-time model inference**.
- Containerized and deployed the application using **Docker** on **Render.com** for production use.

## EDUCATION

### B.Tech in Computer Science and Engineering

KIIT University • Bhubaneswar. • 2026 • 8.38

## CERTIFICATIONS

### Data Analytics Job Simulation

Deloitte Australia • 2025

- Performed **hands-on data analysis and forensic analytics tasks**.
- Gained practical exposure to **data-driven decision making** in a consulting environment.
- Strengthens profile for **Data Analytics, Data Science, and AI/ML internships and roles**.

## SKILLS

Languages : Java, Python.

Core Skills : Machine Learning, Statistics, NLP

Libraries : Pandas, NumPy, Scikit-Learn, Keras

Frameworks : Flask, FastAPI

Tools : Tableau