SANJAY KUMAR

EDUCATION

Rungta College of Engineering & Technology

September 2023 - September 2027

Bachelor of Technology - Computer Science and Engineering (AIML)

Chhattisgarh, In

TECHNICAL SKILL

Languages: Python, C/C++, JavaScript **Frameworks:** React.js, Node.js, Express.js, Flask

Databases: MongoDB (basic), MySQL

Dev Tools & Platforms: Git, GitHub, Visual Studio Code, Postman, NPM, Vite, Netlify, Vercel, Jupyter Notebook, Google Colab pandas, NumPy, Matplotlib, scikit-learn, TensorFlow (basic), React Router, Axios, Bcrypt, JWT, Socket.io

Operating Systems: Windows, Linux (basic)

PROJECT

Antibiotic Resistance Predictor - Link

Apr 2025 - Jul 2025

Enterprise-grade AI platform that predicts antibiotic resistance using genomic, molecular, and clinical data.

- Applied multi-modal AI using transformer models, GNNs, & ensemble ML to analyze real patient and microbial genomic data
- Integrated with CARD, NCBI, PubChem for real-time updates and knowledge graph analysis
- Applied reinforcement learning to optimize treatment decisions based on patient profiles
- Designed professional dashboards and automated clinical reports for decision support

Credit Card & Transaction Fraud Detection System - Link

Fab 2025 - Apr 2025

An intelligent fraud detection platform for secure, real-time transaction monitoring with explainable AI.

- Achieved 99.5% fraud detection accuracy using XGBoost with robust feature engineering
- Role-based access control, encrypted authentication, and automated email alerts with SSL encryption
- Real-time analytics dashboard with interactive pattern analysis, batch processing, and risk scoring
- System health monitoring and multi-layer session handling for production-ready security

Movie Recommender System - Link

Oct 2024 - Nov 2024

A personalized, real-time recommender trained on over 1.2M movies using advanced NLP techniques.

- Preprocessed and vectorized movie metadata (genres, overviews, keywords) using TF-IDF
- Applied KNN + cosine similarity for fast, intelligent top-100 recommendations
- Used NLTK for natural language feature extraction and Pickle for model caching
- Built a Streamlit-based UI with TMDB poster mapping for interactive use

CERTIFICATES / ACHIVEMENTS

GenAl-Powered Data Analytics - Job Simulation - Link

Tata · Forage · Jun 2025 · Credential ID: XfCfYn5obfrdGtZ6B

Skills: Generative AI · Data Visualization

MERN Full Stack Development - Intermediate Level - Link

Coding Spoon · May 2025

Completed hands-on training with a capstone project, demonstrating skills in MongoDB, Express.js, React.js, and Node.js.

HackerRank 5★ Badges: C, C++, Java, Python - Link

Certifications: Python (Basic), Java (Basic), SQL (Advanced)

Patent Filed: Portable AI-Powered Adaptive Wound Healing Device Application Number: 202521015462 · Filed Feb 2025

Smart wearable using microfluidics + bioactive hydrogel + AI for real-time healing optimization.