SIMRAT KAUR

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PROFESSIONAL SUMMARY

BTech CSE (AI & ML) undergraduate with strong skills in Data Analytics, Machine Learning, Deep Learning, and Artificial Neural Networks (ANN). Experienced in building dashboards and predictive models using Python, Power BI, Tableau, SQL, and Excel. Hands-on experience in end-to-end projects including churn prediction, sales analytics, regression models, and ANN-based prediction systems. Actively seeking Data Analyst / Machine Learning internship opportunities.

EXPERIENCE

Social Entrepreneur Intern | Hamari Pehchan NGO
September 2026 | Remote

- Contributed to the "Gadgetshala – Powering Dreams Through Digital Access" social impact project.
- Supported digital outreach, content creation, crowdfunding, research, and campaign execution.
- Independently led a social entrepreneurship initiative, demonstrating leadership and initiative.

PROJECTS

DATA ANALYTICS PROJECT

Lok Sabha Elections 2024 Analysis | *Power BI, DAX*
- Analyzed Lok Sabha election data to study seat distribution, vote share, and state-wise performance.
- Created interactive Power BI reports with DAX measures for comparative and trend analysis.

Indian Bike Sales Analysis | *Microsoft Excel*
- Performed sales analysis on Indian bike data focusing on showroom performance, fuel type distribution, pricing trends, and popular models.
- Used pivot tables, charts, and formulas to summarize and visualize insights.

COVID-19 India Data Analysis | *Tableau*
- Analyzed COVID-19 data to visualize state-wise cases, testing data, age distribution, and vaccination trends.
- Built interactive Tableau dashboards to track pandemic progression and recovery patterns.

Orders & Sales Performance Report | *Google Looker Studio*
- Analyzed orders and sales data across regions, categories, and customer segments.
- Built interactive reports by integrating datasets for automated performance monitoring.

MACHINE LEARNING PROJECTS

Spotify Churn Prediction | Python, Pandas, NumPy, Scikit-learn
- Built a classification model to predict user churn using EDA and machine learning algorithms.

Car Price Prediction System | Python, Regression Models
- Developed a regression model to predict car prices using vehicle features and historical data.

Movie Recommender System | Python, Pandas, Scikit-learn
- Built a recommendation system using similarity techniques to suggest movies based on user preferences.

Book Recommender System | Python, Pandas, Recommendation Systems
- Developed a recommendation system to suggest books based on user ratings and similarity measures

Diabetes Prediction Model | Python, Machine Learning
- Built a classification model to predict diabetes using medical dataset features.

ML Preprocessing Benchmarking Platform | Python, Streamlit, Scikit-learn

- Developed an interactive platform to compare preprocessing techniques and their impact on machine learning model performance.

DEEP LEARNING PROJECTS

Signature Forgery Detection System | Python, CEDAR Dataset

- Built a machine learning system to distinguish genuine signatures from forged signatures using the CEDAR dataset.

EDUCATION

BTech in Computer Science and Engineering (AI & ML) 2023 – 2027
DAV Institute of Engineering & Technology, Jalandhar
CGPA: **8.68/10** (Till 6th Semester)

Senior Secondary (Class XII) 2023
Cambridge International School, Co-Ed, Jalandhar
CBSE Board | Percentage: **97%**

Secondary (Class X) 2021
Cambridge International School, Co-Ed, Jalandhar
CBSE Board | Percentage: **98.6%**

CERTIFICATIONS & ACHIEVEMENTS

• Data Science and Machine Learning – WEBDOX Computer Institute,Jalandhar
• Artificial Intelligence – E&ICT Academy, IIT Kanpur
• Participant, DevCreate Build Fest 1.0 Hackathon – CT Group, Jalandhar
• **NPTEL Domain Certificate – Artificial Intelligence**

- Mathematical Foundations of Machine Learning
- Introduction to Machine Learning
- Artificial Intelligence: Knowledge Representation and Reasoning
- Python for Data Science
- Responsible & Safe AI Systems
- Human–Computer Interaction

RESEARCH PAPERS

Self-Learning Intrusion Response System for IoT Networks Using Online Reinforcement Learning

- Developed an adaptive IoT security framework using online reinforcement learning to detect and respond to cyberattacks.
- Status: Accepted and Presented at the ICACASDF 2026 Conference, UPES Dehradun.
- Co-authors: Bhumika Tiwari, Navneet Sehgal, Simrat Kaur

SKILLS

TECHNICAL SKILLS

Programming: Python, SQL, Java, C++
Libraries: Pandas, NumPy, Matplotlib, Seaborn, Scikit-learn
Data Visualization: Power BI, Tableau, Google Looker Studio, Excel
Databases: MySQL
Tools: Jupyter Notebook, VS Code
RELEVANT COURSEWORK: Operating Systems, Computer Organization and Architecture, Database Management Systems, Computer Networks, Design and Analysis of Algorithms, Artificial Intelligence, Machine Learning, Neural networks, Big data etc

ORGANISATIONS

Member | **International Association of Engineers (IAENG)** September 2026 – Present