

# Dharambir Singh Sidhu

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## TECHNICAL SKILLS

**Languages:** Java, Python

**Databases:** SQL, MySQL, SQLite

**Libraries & Frameworks:** Pandas, NumPy, Matplotlib, Seaborn, Scikit-learn, BeautifulSoup

**Data Science & Machine Learning:** Data Cleaning, Exploratory Data Analysis (EDA), Feature Engineering, Predictive Modeling, Statistical Analysis, Data Analytics, Data-driven Storytelling

## TECHNICAL PROJECTS

**Detecting Deception** | *Python, TensorFlow, OpenCV, DenseNet121, Entropy Analysis*

- Developed and launched a hybrid deepfake detection system adopted by 25+ users, enabling real-time authenticity analysis of digital media.
- Automated data processing workflows on a 140,000-image dataset, improving efficiency and reducing manual effort.
- Integrated DenseNet-121 spatial representations with statistical entropy that enhanced detection reliability and reduced false positives, boosting trust in decision-making.
- Achieved 99.4% accuracy, significantly outperforming existing models and setting a new benchmark for secure and trustworthy digital content.

**KrishNiti AI** | *Python, Scikit-learn, SQLite*

- Built a modular AI platform that integrated crop, climate, and market data to generate sustainability and optimization insights for 10+ users.
- Conducted market and data research, identifying key patterns in rainfall, crop rotation, and environmental factors to guide strategic farming decisions.
- Designed automated pipelines and interactive dashboards to transform complex datasets into clear, actionable suggestions.
- Leveraged an ACID-compliant SQLite backend for efficient, traceable, and centralized agent-wise querying and decision-making, ensuring consistency across analyses.

**MindGuard AI** | *Python, NLP, SHAP, Machine Learning*

- Developed an AI-driven mental health monitoring system enabling early crisis detection and proactive interventions.
- Processed and integrated diverse datasets, including NLP-based sentiment analysis, behavioral metrics (sleep, activity, stress), and clinical assessment scores (DASS-21, BDI, BAI) for comprehensive user profiling.
- Executed thorough data cleaning, exploratory data analysis (EDA), correlation analysis, feature engineering, and dimensionality reduction to uncover risk patterns and early warning signals.
- Applied explainable AI techniques to build transparency, helping stakeholders better interpret health insights and make informed decisions.
- Added a rule based mental health chatbot along with voice analysis for personalized engagement and support, enhancing user experience and accessibility.

## CERTIFICATIONS

**Data Analysis with Python** — IBM - Coursera

June 2025

**Oracle Cloud Infrastructure 2025 Certified Data Science Professional** — Oracle

August 2025

## EDUCATION

**VIT Bhopal University**

2022 – 2026

*B.Tech. in Computer Science and Engineering*

*CGPA: 9.07*

**Delhi Public School**

2022

*Class XII (CBSE)*

*Percentage: 95.2%*

**Euro International School**

2020

*Class X (CBSE)*

*Percentage: 95.6%*

## ACHIEVEMENTS

- Semi-Finalist – Flipkart GRiD 2025 – Advanced to the semi-final stage among 1.5L+ participants nationwide, demonstrating strong problem-solving and innovation skills.
- CodeClash – IEEE TEMS, VIT Vellore: Ranked among top 10 participants (out of 800+) in a competitive coding challenge.

## EXTRACURRICULAR ACTIVITIES

- Pledge a Smile Foundation Volunteer: Actively engaged in fundraising efforts, generating resources for critical initiatives spanning hunger relief, education, and social justice.
- Designed and produced compelling posters and digital assets for numerous Microsoft Club events (e.g., Meme Verse), significantly enhancing event visibility and engagement.