

# SAHEJPREET KAUR

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https://github.com/sahejpreetkaur

## Education

### VIT Bhopal University

Bachelor of Technology in Computer Science and Engineering - 8.52 CGPA

Sep 2022 – May 2026

Bhopal, Madhya Pradesh

## Technical Skills

**Programming Languages :** Python, Java, C, HTML/CSS, JavaScript, SQL, Latex

**Technologies/Frameworks:** MYSQL, Pycharm, Jupyter Notebook, Google Collab, Figma, Github, Wordpress

## Projects

### GANShield: GAN-powered fraud shield | Python, TensorFlow, scikit-learn, Streamlit Mar 2025

- Engineered a fraud detection pipeline leveraging Generative Adversarial Networks (GANs) to synthesize over 10,000 realistic fraudulent transaction samples, effectively reducing class imbalance by 95%.
- Evaluated model efficacy using cross-validation and achieved an AUC above 0.90, demonstrating superior performance on highly imbalanced real-world credit card transaction data sets through testing procedures.
- Developed interactive dashboards with Streamlit to visualize model performance metrics, synthetic data distributions, and classification results, enabling intuitive exploration and stakeholder communication.

### Rice Plant Disease Detection using GenAI | Python, TensorFlow/PyTorch, GoogleCollab Jan 2025

- Designing an AI system for early detection of rice plant diseases, leveraging GenerativeAI (GenAI) models and advanced image processing techniques to significantly enhance diagnostic accuracy by 20% to 96%.
- Improving disease classification response time by 30%, benefiting 500+ farmers across multiple regions.
- Trained deep learning convolutional neural networks on augmented image datasets to accurately identify multiple rice leaf diseases, facilitating crop management and yield protection.

### CureAI: Enhancing Breast Cancer Detection | Python, Machine Learning, Deep Learning Jul 2024

- Applied Logistic Regression, XGBoost, and ExtraTrees on the Wisconsin Breast Cancer dataset (569 samples, 32 features) for predictive analysis and performance, achieving a high classification accuracy of 98.24%.
- Implemented Sine-Cosine and Flower Pollination algorithms for enhanced model interpretability by 20%.
- Enhanced model performance through targeted feature optimization and advanced parameter tuning.

## Experience

### Student Developer: ISABE– International Society of Air Breathing Engines Dec 2024 – Ongoing

Machine Learning Engineer

- Designed and implemented an ML-based research paper management system to significantly boost document retrieval efficiency by 40% and reduce manual classification time by 30% through intelligent categorization, and also built an interactive chatbot to search papers using title, author name, and other information.

### Winter Internship Technical Training Program at India Space Lab

Dec 2024 – Jan 2025

Rank-576

- Explored advanced drone architectures and astronomy tools to innovate next-generation UAV technologies, improving flight stability by 30% and data acquisition accuracy by 25% through enhanced onboard sensing.

## Achievements

**ICPC:2024:** Secured Ranks 1171 (Amritapuri Region) and 1198 (Kanpur Region) , Achieved Top 20 All-Women Team status in India and Ranked 1st among All-Women Teams from VIT Bhopal University.

**EricssonEdge Program :** Selected as one of 500 for excellence in innovation, aptitude, Solving DSA.

**Adobe GenSolve:** Selected as one of the finalist (top 5 percentile) in Machine Learning hackathon.

**CodeKaze:** Ranked 19,944 out of 140k contestants, honing DSA skills for effectively solving problems.

**Intra-University Mathematics Model Making:** 2nd place for work in geometry, calculus and graph-theory.

## Co-Curricular

### Software Development Club

Dec 2023 – Jan 2025

Sub-Manager

- Led team coordination and developed comprehensive social media strategies, effectively managing content creation, precise audience targeting, and campaign, which resulted in a 30% increase in engagement.

### E-Cell

May 2023 – Nov 2024

Social Media and Operation Coordinator

- Led digital campaigns and event promotions across multiple online platforms, increasing entrepreneurial engagement by 20% through strategic content, targeted outreach, and continuous audience interaction.

## Additional

**Languages:** English, Hindi and Punjabi - Proficient in reading, writing, and speaking all three.