

# SHRUTI SINGH

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## Education

### VIT Bhopal University

BTech in Computer Science with Specialization in Artificial Intelligence and Machine Learning

Oct. 2022 – Present

Bhopal, Madhya Pradesh

## Relevant Coursework

- Data Structures
- Algorithms Analysis
- Artificial Intelligence
- Data Science
- Machine Learning
- Database Management
- Engineering Physics
- Computer Architecture

## Experience

### Technohacks Edutech

Machine Learning Intern

January 2025 – February 2025

Online mode

- Implemented various machine learning algorithms (e.g., K-mean clustering, Decision Trees) on real-world datasets.
- Evaluated model performance using metrics such as accuracy, precision, recall, and confusion matrix.
- Gained hands-on experience with Python, scikit-learn, NumPy, Pandas, and Matplotlib.
- Improved understanding of the end-to-end machine learning workflow, from data handling to model deployment basics.

## Projects

### Clinical Data Analysis for Healthcare Management | LSTM, SVR, Random Forest, Pandas, NumPy    October 2024

- Developed a machine learning-based system to predict malaria outbreaks (Plasmodium vivax and falciparum) in Sehore district using historical clinical and environmental data.
- Integrated climate variables like rainfall, temperature, and seasonality to improve forecasting accuracy.
- Enabled proactive decision-making for healthcare resource allocation and vector control, demonstrating the potential of AI in public health surveillance.

### Virtual mouse | Python, Computer Vision, Gesture Recognition, OpenCV

April 2024

- The virtual mouse uses computer vision and hand-tracking technology to control a computer's cursor without physical contact.
- By detecting hand movements and gestures through a webcam, users can perform typical mouse functions like clicking, scrolling, and dragging.
- This innovative project showcases the integration of hardware and software to create a touchless and intuitive user interface.

### Recipe Recommendation System | Python, Flask, Pandas, Web Development

August 2023

- Developed a web-based recipe recommendation system that suggests recipes based on ingredients entered by the user.
- Used a Indian Food dataset from Kaggle containing a large collection of recipes with their corresponding ingredients.
- Worked collaboratively as a team, dividing tasks such as backend logic, dataset handling, UI design, and testing.

## Technical Skills

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

**Developer Tools:** VS Code, Google Cloud Platform, IntelliJ Idea

## Certifications

- GEN AI Using IBM Watsonx
- Oracle: Databases for Developers: Foundations
- Applied Machine Learning in Python
- Mathworks: Simulink Onramp
- Mathworks: Matlab Onramp

## Languages

- Hindi
- English
- Korean (Beginner Level)