SPARSH TIWARI

Phone: +91 6394005616 | Email : sparshtiwari544@gmail.com

# EXPERIENCE

# **Member, Madhya Pradesh Centre of Science and Technology (MPCST)** 11/2023 - PresentVIT Bhopal University, Bhopal, Madhya Pradesh

* Directed the integration of machine learning algorithms within the Automated Spraying System to optimize spray patterns; this innovation enhanced coverage accuracy by 25% and minimized wastage across diverse terrains.
* Spearheaded a research initiative alongside two Senior Scholars, employing advanced methodologies, resulting in a 40% increase in positive peer reviews for subsequent publications.

# EDUCATION

**VIT Bhopal University, Bhopal, Madhya Pradesh**   **07/2022 - 07/2026** B.Tech in Computer Science & Engineering, specialization in Artificial Intelligence and Machine Learning  
 Cumulative GPA: 8.58/10

**Saraswati Vidya Mandir Inter College, Kanpur, Uttar Pradesh**   **07/2022**  
 Class XII (CBSE) - Percentage: 91.6%

# PROJECTS

**Weapon Detection System |** Python, Numpy, Pandas , Matlpotlib, OpenCV

* Integrated OpenCV for real-time video processing and object detection, enhancing the system's responsiveness and reliability by 30%, ensuring immediate threat assessment and response.
* Implemented image pre-processing techniques to filter noise and improve detection accuracy in various lighting conditions and environments.

**Dental Appointment Booking Website |** Express.js, MongoDB, Node.js, HTML, CSS, JavaScript, Bootstrap

* Developed and deployed a responsive, visually appealing admin dashboard using Bootstrap and custom CSS,to manage patient records, appointment bookings , notifications.and ease of use by 40%.
* Enhanced clinic efficiency by 30%,reduced scheduling errors, and improved patient satisfaction with a modern, user-centric interface.

**Billing Management System |** Java

* Designed a robust Billing Management System using Java, streamlining billing processes and reducing manual errors by 40%.
* Crafted user-friendly interface, enhancing user experience and increasing system adoption by 25%..

# EXTRACURRICULAR ACTIVITIES **Technical Co-Lead, Android Club** VIT Bhopal University, Bhopal, Madhya Pradesh 05/2024 - Present

* Led a team of 5+ members, providing innovative ideas for event and project completion and engagement.
* Orchestrated 5+ weekly meetings to plan and organize club events.
* Facilitated a technical workshop for 50+ participants on integrating IoT devices like Raspberry Pi with databases and machine learning models, enhancing attendee skills and boosting project efficiency by 40%.

# SKILLS

**Programming Languages:** Python, Java,C++

**Web Development** : HTML,CSS,JavaScript

**Technical Skills:** MongoDB ExpressJS, NodeJSComputer Vision, Data Analysis , Iot , Data Science,Machine Learning, Deep Learning

**Data Analysis :** Data visualization, Statistical modeling, Feature engineering

**Data Structures & Algorithms:** Solved 300+ problems in Java (GeeksforGeeks, Code360)

# ACHIEVEMENT

* **Ranked** in the Top 10 at SISTec Hackathon 2024.
* **Authored** a research paper on a Crop Disease Prediction System with fellow scholars.
* The 'AI-powered Pesticide Spraying Drone' was selected among the top 5 projects at Project Expo 2024, organized by VIT Bhopal University.
* **Design Patent for Automated Spraying Machine** | Patent Number: 418920-001