



# AAYUSH WALSANGIKAR

## PROFILE

- Second-year Information Technology student at Vishwakarma Institute of Technology with a strong foundation in machine learning, full-stack web development, and robotics. Passionate about leveraging data and technology to solve complex, real-world problems, with achievements including an official patent for an innovative IoT device for accident prevention. Eager to apply hands-on project experience in a challenging and growth-oriented professional environment.

## PROJECTS

### Accident Severity Prediction Using AIML

Python | Scikit-learn | XGBoost | Pandas | Data Analysis

- Developed two distinct machine learning models to predict person-level injury and overall collision severity from a real-world dataset.
- Executed comprehensive data preprocessing, including cleaning, feature engineering, and handling of missing values to ensure data quality.
- Implemented and fine-tuned advanced ensemble methods, including Stacking and Voting classifiers (RandomForest, XGBoost, AdaBoost), to achieve high predictive accuracy.

### Accident Prevention Glasses (APGs)

Robotics | IoT | Embedded Systems | Bluetooth Low Energy (BLE)

- Awarded an official patent for the novel driver fatigue detection and haptic alert system integrated into the device.
- Designed and prototyped a wearable IoT device (APGs) to prevent driver fatigue and reduce the likelihood of road accidents.
- Conducted research on wearable ergonomics and performed power consumption analysis to create a cost-effective and efficient solution using BLE.

### MHT-CET College Predictor

Web Development | HTML5 | CSS3 | JavaScript

- Engineered a full-stack web application to provide personalized college admission predictions based on MHT-CET ranks and student categories.
- Developed a robust back-end in purely JavaScript to efficiently query and filter a large-scale dataset of historical admission data.
- Designed a clean and intuitive front-end interface, allowing users to easily input their information and receive a clear, actionable list of probable colleges.

### Data Analysis Dashboard

Data Visualization | Epi Info | Data Processing

- Processed and visualized complex IPL match data using Epi Info to create an interactive dashboard with real-time updates and customizable charts.
- Utilized Epi Info to create a suite of powerful data visualizations, featuring real-time data updates and customizable charts that allow users to effectively identify trends, compare statistics, and understand complex datasets at a glance.

## CONTACT

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- <https://github.com/Aayush-W>

## EDUCATION

2021-2022

PODAR INTERNATIONAL SCHOOL

- Passed with merit and exceptional performance of 91%

2023-2024

DAYANAND SCIENCE COLLEGE

- Passed with merit and exceptional performance

2024- ongoing

VISHWAKARMA INSTITUTE OF TECHNOLOGY

- First Year Passed with merit.

## SKILLS

Programming Languages

- Python
- Java
- C / C++
- JavaScript
- HTML / CSS
- SQL

Frameworks & Libraries

- Scikit-learn
- Pandas / NumPy
- XGBoost / AdaBoost
- React.js
- Node.js
- Flask / Django

Tools & Technologies

- Git & GitHub
- VS Code
- Epi Info
- Arduino / Raspberry Pi
- IoT & BLE

Soft Skills

- Problem Solving
- Project Management
- Data Analysis
- Team Collaboration

CERTIFICATES

Infosys Springboard

- Web Development (HTML5, CSS3, JS)
- Responsive Web Design
- Python Programming
- Introduction to AI & Robotics
- C Programming

Professional

Rightway Counselling

- Data Analyst & Web Developer

NexGen Media

- Social Media Marketing

Government Sports Department Website

HTML | CSS | JavaScript | UI/UX Design

- Developed a full-featured, professional-grade website for a government sports department to act as a central digital hub for all official work, public announcements, and departmental details.
- Successfully cloned the complex design, layout, and functionality of the official ICC website, demonstrating a keen eye for detail and the ability to recreate sophisticated, professional user interfaces using modern front-end technologies.

Robotics & IoT Explorations

Embedded Systems | C++ | Arduino| Robotics| Internet of things

- Built, programmed, and calibrated multiple autonomous robots from the ground up, demonstrating strong skills in hardware integration and embedded systems programming.
- Projects included a line follower robot that utilized PID control for precise movement and an LCD for status indication, as well as an obstacle-avoiding robot that employed ultrasonic sensors for real-time environmental awareness and navigation.

EXPERIENCE

Junior Web Developer and Data Analyst at RightWay Counselling | Admissions Counselor & Data Analyst | Web Dev Intern | Latur, Maharashtra

- Guided over 60+ students and parents through the complex CAP round admission process, enhancing communication and critical thinking skills.
- Developed the MHT-CET College Predictor website as a key tool during this internship to automate and improve the accuracy of college recommendations.
- Managed and performed statistical analysis on student data to identify trends and provide data-driven counseling on college preferences.

NexGen Media | Social Media Marketing Intern

- Gained foundational experience in digital marketing by assisting with social media campaigns and content creation during high school.
- Learned core principles of online brand management and audience engagement.

ACHIEVEMENTS

NATIONAL SCIEMCE OLYMPIAD

Gold medalist twice in 2 consecutive years

INTERNATIONAL MATHEMATICS OLYMPIAD

Gold medalist and zonal certification 2 years consecutive.

ACADEMICS

98 percentiler in national and state level exams JEE and MHT-CET

PATENTIZATION OF ASEP PROJECT

A group project named Accident prevention glasses (APGs) focused on Wearable Ergonomics And Robotics under the guidance of Dr. Pradnya Dixit at Dept of Engg Sciences & Humanities, Vishwakarma Institute of Technology Oct 2024 to Feb 2025/March 2025 to June 2025