

Sarthak Mahajan

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EDUCATION

Shri Vaishnav Vidyapeeth Vishwavidyalaya (SVVV), Indore

2023 – 2027

B.Tech in Computer Science & Engineering (CSE)

GPA: 8.4

Higher Secondary (CBSE) — Class XII, PCM

2023 | 70%

Secondary (CBSE) — Class X

2021 | 75%

TECHNICAL SKILLS

Languages: C, C++, Python, Java (Core), SQL, HTML5, CSS

Libraries / Frameworks: NumPy, Pandas, Matplotlib, Seaborn, Scikit-learn

Concepts: Data Structures (Basics), Object-Oriented Programming

Soft Skills: Technical Documentation, Cross-functional Collaboration, Independent Learning

EXPERIENCE & LEADERSHIP

Google Developer Student Group (GDSC) — AIML Member

- Completed 10+ hands-on AI/ML workshops covering supervised learning, preprocessing, feature engineering, and evaluation techniques.
- Collaborated within a 6-member team to preprocess datasets and train ML models evaluated using accuracy and F1-score.
- Executed end-to-end ML workflows including training, validation, and model tuning.

AWS Cloud Club — Technical Lead

- Led technical initiatives for a 30+ member cloud computing community.
- Conducted 5+ workshops on EC2, S3, IAM, and cloud deployment fundamentals.
- Mentored 10+ juniors in cloud architecture and DevOps basics.
- Directed deployment of 3 live cloud-based demo projects to enhance practical learning.

VOID Hackathon — AI/ML Domain Winner

- Secured **1st position among 80+ teams** in a 24-hour national-level AI/ML competition.
- Designed and presented a functional AI prototype under strict time constraints.
- Delivered a high-accuracy solution evaluated on innovation, scalability, and technical execution.

PROJECTS

NASA Meteorite Data Analysis | Python, Pandas, NumPy, Matplotlib

- Analyzed 45,716+ meteorite records across 100+ geographic regions to uncover fall pattern trends.
- Enhanced data interpretability by 30% through structured feature engineering and visualization.
- Optimized preprocessing workflows, reducing manual data cleaning time by 40%.
- Developed interactive visual reports for research-based insight communication.

Healthcare AI Guidance (Void Hacks 7.0) | ML, Flask, React, MongoDB

- Architected an AI healthcare platform integrating 3 disease prediction models.
- Attained 89% accuracy through hyperparameter tuning and feature optimization.
- Streamlined prediction workflows with <2s API response latency.
- Automated patient data logging and historical analytics using MongoDB.
- Built interactive dashboards to support diagnostic interpretation.

Deepfake Detection System | Xception, EfficientNet, Python

- Designed a CNN-based deepfake detection framework using transfer learning.
- Structured preprocessing, inference, and evaluation pipelines in Python.
- Increased detection performance by 15% through augmentation and tuning.
- Assessed results using accuracy, precision, recall, and F1-score metrics.

Smart Traffic Management System for Emergency Vehicles | YOLO, Open CV, NumPy, Python

- Built real-time emergency vehicle detection using computer vision.
- Optimized traffic signal control for faster emergency response.
- Designed System Architecture and decision-making pipeline.
- Integrated detection with traffic simulation and alert system.

RELEVANT COURSEWORK

Database Management Systems, Data Analytics, Data Visualization, Data Structures & Algorithms, Artificial Intelligence & Machine Learning

ACHIEVEMENTS

- **Winner – VOID Hackathon** (AI/ML Domain) among 80+ teams.
 - Achieved **Top 10 position** in Prayatna 3.0(36 Hours Hackathon).
 - Awarded **Best Team Collaboration Award** for effective teamwork and execution.
 - Solved 100+ Data Structures & Algorithm problems on HackerRank.
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CERTIFICATIONS

- Data Science Foundations – Level 1 — IBM (2025)
- Data Analytics Job Simulation — Deloitte Australia via Forage (2025)
- GenAI Powered Data Analytics Simulation — Tata via Forage (2025)
- Generative AI Foundations — AWS Academy (2025)