

# MADHAV MAHAJAN

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🌐 [Linkedin](#)

🐙 [Github](#)

📁 [Portfolio](#)

## EDUCATION

**Thapar Institute of Technology and Engineering**

**Expected June 2026**

*Bachelor of Engineering in Computer Engineering with CGPA 8.24*

*Patiala, Punjab*

**HOLY HEART PRESIDENCY SCHOOL**

**2022**

*Passed Class 12th (Non-Medical) with 93.4% and Class 10th with 92.8%*

*Amritsar, Punjab*

## WORK EXPERIENCE

**HealthArc**

**Feb 2025 – Apr 2025**

*Developer Intern*

*Remote*

- Modernized the company website by migrating a PHP frontend to React, improving performance by 25% and maintainability.
- Integrated Deepgram API for real-time speech-to-text, reducing manual transcription effort by 10%.
- Built a POC for Shopify integration to streamline product listings and enable e-commerce scalability.
- **Certificate:** [View Credential](#)

**Office of Alumni Relations, Thapar Institute of Engineering and Technology**

**Sep 2024 – Feb 2025**

*Full-Stack Developer*

*Patiala, Punjab*

- Architected **ThaProt-G** — a full-stack alumni management and networking platform enabling alumni to connect, collaborate, and contribute to campus initiatives, with 500+ verified users in the first month.
- Developed modules for event registration with integrated payment gateway and alumni card issuance system.
- Implemented authentication, personalized dashboards, and project showcases using React.js, Express.js, and PostgreSQL.
- Engineered a scalable backend with RESTful APIs and PostgreSQL, efficiently handling 1000+ concurrent requests.
- Enhanced alumni engagement through intelligent filters, event listings, and real-time updates.

## PROJECTS

**[AI-Powered Surveillance System](#) — Python, OpenCV, YOLOv5, SORT, Streamlit**

- Built a real-time computer vision system using YOLOv5 and SORT for object detection and tracking.
- Implemented abandoned-object and loitering detection with real-time alert visualization on Streamlit dashboard.
- Optimized performance for smooth live video analytics and configurable monitoring parameters.

**[Acadify: Course Management System](#) — PostgreSQL, SQL, Views, Triggers**

- Designed a normalized database for course, faculty, and chatroom management with automated triggers and constraints.
- Utilized views, materialized triggers, and indexing to accelerate queries and enable actionable analytics.
- Streamlined workflows for assignment tracking, faculty load reporting, and document management.

## SKILLS

**Programming Languages:** C/C++, SQL (PostgreSQL), JavaScript, HTML, CSS, Python

**Development Frameworks Libraries:** React.js, Express.js, jQuery, Bootstrap, Node.js

**Developer Tools:** Git, VS Code, PyCharm, Jupyter Notebook, PostgreSQL, Postman

**Proficient In:** DBMS, Back-End Technologies, Machine Learning, Object-Oriented Programming

**Soft Skills:** Team Collaboration, Communication, Problem-Solving, Leadership, Adaptability

## POSITIONS OF RESPONSIBILITY

**ALUMNI RELATIONS CELL**

**Jan 2024 – Present**

*Head of Technical and Management Team*

*Thapar Institute of Engineering and Technology*

- Leading the creation of Thapar's alumni-student networking platform for events, jobs, and outreach.

**SATURNALIA**

**Sept 2024 – Present**

*Head of Technical Department*

*Thapar Institute of Engineering and Technology*

- Led technical operations for Thapar's largest techno-cultural fest, ensuring smooth execution for 15,000+ attendees.