MADHAV MAHAJAN

India

📞 +91-9915043726   ✉ madhavmahajan152@gmail.com   in Linkedin   ○ Github   Portfolio

EDUCATION

Thapar Institute of Technology and Engineering — **Expected June 2026**
Bachelor of Engineering in Computer Engineering — *Patiala, Punjab — CGPA: 8.24*

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**
Frontend Developer Intern — *Remote*

- Revamped the frontend of the company's website, migrating a legacy PHP codebase into a modern React architecture, which improved site performance by 25% and enhanced maintainability.
- Integrated Deepgram API for real-time speech-to-text functionalities, reducing manual transcription effort by 80%.
- Engineered a proof-of-concept (POC) for Shopify integration, enabling a pathway to streamline product listings and payment processing for future e-commerce capabilities.

Alumni Relation Cell, Thapar Institute — **Sep 2024 – Feb 2025**
Full-Stack Developer — *Patiala, India*

- Architected ThaProt-G (thaprotg.thapar.edu) from scratch — a professional networking platform for Thapar students and alumni, attracting 500+ active users in the first month.
- Implemented user authentication, dynamic dashboards, messaging, and project showcasing features using React.js, Express.js, and PostgreSQL.
- Orchestrated a scalable backend with RESTful APIs and PostgreSQL to handle user data, project uploads, and alumni connections, supporting 1000+ concurrent requests without performance degradation.

PROJECTS

ThaProt-G — **React, Express.js, Node.js, PostgreSQL**

- Created a web application to bridge the gap between students and alumni by enabling project collaboration and funding opportunities, engaging over 500+ verified users in the initial phase.
- Devised a multi-interface system for students, alumni, and a permitting committee to regulate access to projects and postings.
- Enhanced user engagement by adding advanced filters for alumni search, project showcases, and college updates.

Software Fault Prediction System — **Python, Machine Learning**

- Directed the development of a machine learning-based system for predicting software faults, achieving a proof-of-concept accuracy of over 85% on test datasets.
- Crafted an intuitive graphical user interface to enhance accessibility and usability.
- Optimized software reliability and maintenance workflows by enabling early fault detection during development.

Healthcare Multilingual Assistant — **Node.js, Express.js, Deepgram API, Socket.io**

- Engineered a real-time multilingual speech-to-text and translation web app to assist healthcare providers in communicating with patients across 12+ languages.
- Integrated Deepgram API for accurate live transcription and enabled bidirectional translation with optional Google Cloud Translation API.
- Developed audio recording, file uploads, and conversation history tracking with a responsive UI and real-time updates using Socket.io.
- Built RESTful API and WebSocket endpoints to handle transcription, translation, and audio streaming efficiently.

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

POSITIONS OF RESPONSIBILITY

ALUMNI RELATIONS CELL   **Jan 2024 – Present**

Head of Technical and Management Team   *Thapar Institute of Engineering and Technology*

- Produced engaging user interfaces and programmed a single-player Mines game, increasing student portal engagement by 15%.
- Spearheading the development of the official alumni-student networking website to centralize events, job postings, and alumni outreach.

SATURNALIA   **Sept 2024 – Present**

Head of Technical Department   *Thapar Institute of Engineering and Technology*

- Directed the technical team for Saturnalia, the largest techno-cultural event at Thapar, ensuring seamless execution for over 5,000 attendees.