Mohan Chaturvedi

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Education

VIT Bhopal University, B.Tech in Computer Science and Engineering (Specializing in Cloud Computing and Automation)

2022 - 2026

• CGPA: 7.69

Projects

Video Highlights Extractor

- Developed an AI application to automatically extract highlights from videos, reducing manual work by 90%.
- Integrated the VideoDB API to analyze video content, which improved insight generation by 40%.
- Engineered an end-to-end workflow, from video upload to clip generation, which increased processing speed by 25%.
- Designed a Streamlit interface that improved user experience, resulting in a 15% boost in user satisfaction.

Blood Bank Management System using Amazon Web Services

- Architected and stress-tested a scalable transaction system handling 10,000+ daily interactions, validating product stability under concurrent user scenarios.
- Simulated user workflows to proactively address usability challenges, reducing pre-deployment issues by 20%.
- Developed REST APIs with data validation, ensuring a data accuracy rate of 99% across the system.
- Documented the system's architecture and test results, which decreased future debugging time by 30%.

Serenade - Music Player (Electron, React) | FOSSHack 2025 Winner

- Led end-to-end development of a cross-platform desktop music player, validating usability across multiple environments to deliver a polished user experience.
- Simulated user journeys such as music download, playlist organization, and real-time audio visualization to uncover edge cases and improve engagement.
- Collaborated on CI/CD pipelines to ensure faster, safer iterations and stable releases.
- Recognized as a winning project at FOSSHack 2025, demonstrating innovation, product quality, and strong user-centric design.

SKILLS, CERTIFICATIONS, INTERESTS

 $\textbf{Languages:} \ C++, Java, Python, SQL, JavaScript, HTML, CSS, Node. js, TypeScript, Next. js$

Frameworks & Tools: Flask, React, Express, Electron, Spring Boot, REST API, Maven

Technologies: Amazon Web Services (AWS), XAMPP, Git, Excel, GenAI,

Methodolgies: Agile development, End-to-end system design, CI/CD, Object-Oriented Design, Problem Solving, and Complexity Analysis.

Certifications:Industrial IoT Markets and Security(Coursera), MERN Full Stack(Ethnus), AWS Solutions Architect(Associate Internship), AWS Academy Cloud Foundations(AWS Academy Graduate), AWS Academy Cloud Architecting(AWS Academy Graduate)