Mohan Chaturvedi

chaturvedimohan97@gmail.com   +91 9140551805   linkedin.com/in/mohan-chaturvedi

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
- Engineered an AI-powered application using Python and Streamlit to automate the extraction of compelling video highlights, designing a system that programmatically analyzes video content to eliminate time-consuming manual reviews.
- Leveraged a Large Language Model (LLM) via the VideoDB API for advanced semantic analysis of video transcripts, enabling the intelligent identification and segmentation of dramatic, educational, and insightful moments.
- Architected a full-cycle video processing pipeline that managed video ingestion, cloud-based transcoding, speech-to-text (STT) transcription, and automated clip generation by integrating the VideoDB Python SDK.
- Developed a user-centric interface with Streamlit to provide an end-to-end workflow, from video upload to the generation and display of playable highlight clips complete with descriptions, clickable timelines, and streaming URLs.

Blood Bank Management System using Amazon Web Services
- Architected a high-availability Blood Bank Management System on AWS, leveraging the Spring Boot stack to securely process 10,000+ daily transactions for 50+ concurrent users. This system was orchestrated on AWS using Elastic Beanstalk and RDS for automated scaling and resilience.
- Engineered a robust, modular backend using Spring Boot and Spring Data JPA with Hibernate for seamless, low-latency ORM. This approach ensured high-performance transaction management and strong data integrity with a MySQL database.
- Engineered a responsive frontend with HTML/CSS/JavaScript, focusing on user experience and accessibility.
- Implemented comprehensive, role-based security measures using Spring Security to safeguard sensitive data and system endpoints. Developed a full suite of RESTful APIs with Spring MVC to facilitate secure and reliable data exchange.
- Owned complete documentation for system architecture and deployment, enabling long-term maintainability.

Serenade – Music Player (Electron, React) | FOSSHack 2025 Winner
- Spearheaded end-to-end development of a secure, scalable desktop music player with full-stack integration using Electron and React.
- Integrated SpotDL API for seamless music downloads with playlist organization and metadata management.
- Developed real-time audio visualizations using Web Audio API, enhancing user interaction through dynamic visual feedback.
- Configured CI/CD pipelines and cross-platform builds, demonstrating ownership and delivery of a production-ready application.
- Recognized among winning projects at FOSSHack 2025, highlighting innovation and impact.

SKILLS,CERTIFICATIONS,INTERESTS

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: Python Essentials(Vityarthi), 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)