GAURAV MEHRA

Chandigarh

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EDUCATION

Punjab Engineering College , Chandigarh   November 2022 – July 2026
B.Tech Electronics and Communication Engineering   *Chandigarh*

INTERNSHIP

Tech Mahindra ↗   January 2025 – April 2025
Intern   *Pune, Maharashtra*

- Led end-to-end development of an AI-powered surveillance system capable of real-time human detection, anomaly analysis, and detailed activity logging from CCTV feeds, enhancing monitoring efficiency by 35% and enabling proactive security interventions.
- Designed and implemented advanced automation features such as instant live alerts for suspicious activity, dynamic heatmaps for crowd movement analysis, and face blurring for privacy compliance using YOLOv8 and OpenCV, boosting data security and compliance rates by 40%.
- Identified, diagnosed, and resolved critical authentication and logging bugs in a production AI chatbot system, reducing system vulnerabilities by 70% and significantly improving overall stability, user trust, and reliability.
- Collaborated with cross-functional engineering, product, and QA teams in an agile environment to deliver 25% faster model inference speeds, optimize hardware resource usage, and implement scalable, secure logging modules for enterprise-level deployments.

PROJECTS

AI Powered Human Tracking System | Python — OpenCV — YOLOv8 — Django — MySQL

- Built a real-time AI system using YOLOv8, OpenCV, and Django to detect and track humans from CCTV with 92% accuracy and less than 200ms latency, enabling alerts, heatmaps, and identity masking.
- Developed a full-stack platform with MySQL and jQuery for live monitoring, role-based access, and historical activity logs via a responsive dashboard.

Resume Matching System | Django — LLM — MySQL — React.js — OpenAI GPT

- Developed an AI-based platform using Django, React, and GPT to analyze resumes, detect skill gaps, and match them to job descriptions, improving relevance by 60%.
- Implemented ATS scoring, keyword density metrics, and revision tracking with a responsive UI for resume upload and instant feedback.

Real-Time Collaborative Code Editor | React.js — Node.js — Socket.io — Docker — MySQL

- Engineered a real-time collaborative code editor featuring live cursors and syntax highlighting for five coding languages, allowing two developers to simultaneously edit code with under 50ms latency.
- Implemented Socket.io-based real-time synchronization with conflict resolution to maintain consistent shared state across all clients.
- Integrated Docker execution and WebRTC video chat for seamless remote interviews and pair programming.

TECHNICAL SKILLS

Languages: Python, C++, JavaScript, SQL, NoSQL, TypeScript ,
Developer Tools: VS Code, Android Studio, DataGrip, Goland, Intellij Idea Ultimate , Postman , Google Collab , Workbench,Jupyter Notebook, Anaconda
Technologies/Frameworks: Linux, GitHub, ReactJS, NextJS, NodeJS, ExpressJS, Git, MongoDB, Django , Flask , OpenCv ,MYSQL , Computer Vision , Excel , Tableu , Power BI , Numpy , Matplotlib, Pandas,Tensorflow , Keras

Achievements

- Solved 350+ DSA problems on LeetCode, demonstrating strong problem-solving and algorithmic skills.
- HackerRank Problem Solving (Intermediate) Certified, showcasing analytical abilities.
- HackerRank SQL (Intermediate) Certified, proficient in database querying and optimization.
- Led 15+ volunteers as Subhead, Publicity Committee – PECFEST, coordinating many departments and engaging 100+ students.
- Completed Generative AI – Google Cloud Skills Boost, gaining practical AI workflow skills.
- Completed Decode DSA with Python – PW Skills, building strong DSA fundamentals through hands-on coding.