

Avin Saxena

LinkedIn: <https://www.linkedin.com/in/avin-saxena-384616237/>
Github: github.com/Avin-saxena

Email: avin12121111@gmail.com
Mobile: +91-9327109849

EDUCATION

- Indian Institute of Information Technology Vadodara ICD** **Jul 2021 - Jul 2025**
 - Bachelor of Technology - Computer Science;*
 - Courses: Operating Systems, Data Structures, Analysis Of Algorithms, Artificial Intelligence, Machine Learning, Networking, Databases*

SKILLS SUMMARY

- Languages** Python, C++, C, Javascript, SQL/NoSQL, HTML, CSS.
- Frameworks** ReactJS, Angular.js, Next.js, Express.js, Hugging Face, NumPy, PowerBI, Tableau, MongoDB, SQLite.
- Tools** GIT, MySQL, RESTful APIs, MATLAB, Latex.
- Platforms** Linux, Windows, Machine Learning, Object Oriented Programming.

EXPERIENCE

- Software Engineer Intern** **Jun 2024 - Aug 2024**
 - Pratinik Infotech Pvt. Limited*
 - Developed an ML model** for metal casting defect detection, with CNNs (VGG16, ResNet50).
 - Optimized training processes** by integrating **SGD and Adam optimizers**, reducing model convergence time by 15% and improving performance.
 - Applied data augmentation techniques** to address class imbalance, increasing model robustness by 20%.
- Web developer Intern** **Jun 2023 - Dec 2023**
 - IndusFly*
 - Designed and implemented the backend architecture** for a flight reservation system using **Express.js**, maximizing data processing, reducing response time by 30%.
 - Integrated JWT-based authentication** to enhance user security, resulting in a 25% reduction in unauthorized access incidents.
 - Built a responsive UI** with **React.js**, automating PDF invoice generation after payments for enhanced user experience.

PROJECTS

- Inquire PDF (React.js, FastAPI, Python, Hugging Face, FAISS, PyMuPDF, SQLite)** [GitHub Link](#)
 - Built a **full-stack** platform with **React.js** frontend and **FastAPI** backend, enabling PDF uploads and managing real-time Q&A responses with <1-second latency using a fine-tuned T5 **large language model (LLM)**.
 - Constructed semantic search with **FAISS** and sentence embeddings, ensuring 35% faster retrieval times for relevant sections across large documents.
 - Optimized backend with **SQLite** to handle 1000+ queries, established real-time error tracking, and deployed with Uvicorn to support concurrent sessions without degradation.
- Video WebApp (React.js, Express.js, MongoDB, JWT, UI/UX)** [GitHub Link](#)
 - Architected a responsive dashboard using **React.js**, enhancing **UI/UX** and ensuring smooth performance across mobile and desktop platforms.
 - Deployed **JWT**-based authentication in **Express.js**, fortifying data security and increasing access control efficiency by 30%.
 - Engineered a **scalable video API** with **Express.js** and **MongoDB**, streamlining processing of 1000-second videos under high traffic.
 - Fine-tuned **MongoDB** queries, cutting storage time by 40% and accelerating large metadata retrieval for faster user interactions.
- Laundry Management System (Express.js, HTML, CSS, MySql)** [GitHub Link](#)
 - Constructed scalable **RESTful API** endpoints using **Express.js**, handling over 1,000 requests per second for laundry operations management.
 - Managed employee, customer, and inventory data with CRUD operations in **MySQL**.
 - Secured API access for 50+ users by implementing authentication and authorization with **JWT** (JSON Web Tokens).
 - Achieved 98% unit test coverage using Postman and Jest, ensuring reliability and eliminating bugs.

CERTIFICATIONS

- Complete Web Development Bootcamp:** Gained expertise in **full-stack web development**, mastering both frontend (HTML, CSS, JavaScript, React) and backend technologies (Node.js, Express.js).
- C++ Programming:** Mastered C++ object-oriented programming, data structures, and algorithms, and implemented efficient solutions for sorting, searching, and dp challenges.

POSITION OF RESPONSIBILITY

- Joint Secretary at Vector Design Club IIIT Vadodara ICD**
 - Led a team of 40 members to organize cultural events, increasing participation by 30% and boosting club visibility.*