Saurav Kumar
Btech

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</> LeetCode ⚙ Codeforces

EDUCATION

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
B.Tech. in ECE	National Institute of Technology, Warangal	7.69	Dec'21-May'25
Senior Secondary	Sunbeam Academy Varanasi, Uttar Pradesh	95.8%	Jun'19-Apr'21
Secondary	Jawahar Navodaya Vidyalaya Buxar, Bihar	97.6%	Aug'14-Apr'19

EXPERIENCE

- **SAP Labs** *May'24 – July'24*

  ***Software Development Engineer Intern** | AI/ML Track* Bengaluru, India
  - **Synthetic Media Detection:** Engineered CNN models (EfficientNet-B4) achieving 97.16% accuracy for image authenticity verification and 98.0% accuracy for audio deepfake detection using mel-spectrogram analysis.
  - **Production Deployment:** Deployed models through Hugging Face Inference API with REST endpoints, integrated into SAP Fiori applications using UI5 Framework and OData services
  - **Real-Time Analysis:** Designed a video streaming pipeline with OpenCV and WebRTC, enabling 1080p feed processing at 18 FPS on cloud infrastructure.
  - **Full-Stack Integration:** Developed a Python Flask backend managing 30+ concurrent media analysis requests efficiently.
  - **Model Development:** Trained and validated detection models using Tensorflow with 140k+ synthetic/natural media samples

PERSONAL PROJECTS

- **ChatWave** *Apr'23-Jul'24*

  Full-Stack Real-Time Chatting App ⌾ GitHub
  - **Full-Stack Development:** Architected a scalable chat platform using React.js with Redux-Toolkit for state management and a Node.js backend handling 50+ concurrent connections, ensuring <200ms message latency.
  - **Real-Time Architecture:** Devised an event-driven messaging system via Socket.io, implementing message compression and reducing bandwidth usage by 40% through binary protocol optimization.
  - **Security:** Secured user data with JWT authentication, refresh token rotation, and AES-256 encryption for message storage in MongoDB Atlas.
  - **UI/UX:** Created responsive interface using Chakra UI with theme switching and accessibility features
  - **Group Chat Features:** Engineered CRUD operations for chat rooms with granular permissions (admin roles, user banning) and Redis-cached participant lists

- **SKINVANA** *Sep'23 - Oct'23*

  A SQL Project On Database Management System 📄 Link
  - **Relational Database Design:** Built MySQL database with 15+ tables to store user profiles, skin surveys, and product data for customized skincare recommendations
  - **Database Architecture:** Constructed ER models and implemented 3NF, BCNF normalization across 20+ entities, reducing data redundancy by 65% while maintaining 50+ skin/product attributes also collaborated with team members to structure complex relationships efficiently.

TECHNICAL SKILLS AND INTERESTS

Languages: C++, Python, JavaScript, SQL, NodeJs, HTML, CSS, CAP
Developer Tools: GitHub, Visual Studio Code, Git
Frameworks: Bootstrap, ExpressJS, SAP UI5, Reactjs
Cloud/Databases: MySQL, MongoDB, SAP Hana Cloud
Coursework: Data Structure and Algorithms, OOPs, Operating system, AI and ML, DBMS

ACHIEVEMENTS

- Solved 400+ DSA questions on coding platforms such as LeetCode, CodeChef and GFG. *Apr'24*
- 99.32%ile marks among 10lakh+ Students, JEE MAINS Mar'21 *Mar'21*
- NTSE Qualified *Jun'19*
- District Topper in Class 10 and Received the Best Student award *Jun'19*