AVI RAJ

New Delhi, India

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EDUCATION

Year	Degree/Exam	Institute	CGPA/Marks
2021 – 2025	B.Tech (Automation & Robotics)	GGSIPU, New Delhi	8.10 CGPA
2018 – 2020	AISSCE (CBSE)	ST JOHNS ACADEMY	86.8%

TECHNICAL SKILLS

- **Languages:** Python, C/C++, Java, JavaScript, TypeScript, SQL.
- **Technologies & tools:** TensorFlow, Django, Flask, FastAPI, ReactJS, Tailwind CSS, Bootstrap CSS, Git, GitHub, REST APIs, AWS, Docker, MySQL, PostgreSQL, MongoDB, Linux.

PROFESSIONAL EXPERIENCE

UDIP Technologies Pvt. Ltd. **Aug. 2023 – Sept. 2024**
Computer Vision Intern *New Delhi, India*
- Collaborated with a **5-member R&D** team to build computer vision systems, improving model **efficiency by 20%** across 3+ industrial setups.
- Trained YOLOv7 on **10,000+ labeled images**, achieving **95% accuracy** in field testing under varied lighting.
- Enhanced YOLOv7 **precision by 15%** through hyperparameter tuning for low-light detection.
- **Technologies Used:** Python, Django, OpenCV, YOLOv7.

PROJECTS

Chatty *May 2025*
- Developed a real-time chat app with **group/personal** messaging and password or TOTP-based login for **200+ users**.
- Improved **UX by 35%** with file sharing, typing indicators, and read receipts.
- **Reduced fake signups by 60%** using OTP-based registration with email and phone verification.
- Achieved <**200ms message latency** via Redis socket caching and file rate-limiting.
- Built scalable backend using Node.js (MVC), MongoDB, and Socket.IO for real-time messaging.
- **Technologies Used:** React.js, Node.js, Socket.IO, MongoDB, Redis, JWT, TOTP, TailwindCSS.

QRVars *June 2025*
- Deployed a live QR-based email system to streamline event registrations, increasing personalized **engagement by 30%**.
- Built a full-stack app with React, Node.js, and PostgreSQL to **generate 500+** QR codes, boosting user by 25%.
- Created a real-time dashboard using Socket.io to **track 500+ QR scans and submissions**, improving operational visibility.
- Integrated Supabase Auth and Redis for secure, performant session handling, **reducing auth failures by 40%**.
- **Technologies Used:** React.js, Node.js, Supabase, Redis, PostgreSQL, Socket.io, TailwindCSS, Render, OAuth.

PhotoMingle *July – Sept 2024*
- Developed a vision-based photo sharing app to streamline distribution at large events using browser-side facial recognition.
- Implemented face matching with face-api.js for client-side photo access control, enabling secure **retrieval of 10,000+ images**.
- Designed responsive UIs using React and TailwindCSS for smooth event and photo management, improving UX by 35%.
- Integrated SendGrid for automated email notifications and updates, boosting **user engagement by 40%**.
- **Technologies Used:** React.js, Django, MongoDB, TailwindCSS, face-api.js, SendGrid.

Facial Recognition Systems *Apr - June 2023*
- Replaced static login systems by implementing a facial authentication solution, reducing **login time by 60%**.
- Enhanced security with real-time liveness detection and anti-spoofing techniques using OpenCV and Face_Recognition.
- Developed a React-based admin dashboard to visualize **500+ authentication logs** and manage dynamic access roles.
- **Technologies Used:** OpenCV, Face_Recognition, React.js, Bootstrap.

LEADERSHIP & VOLUNTEERING

KaruYantra: The Robotics Society, GGSIPU **Aug 2023 – July 2024**
Senior Coordinator *New Delhi, India*
- Organized **5+ technical workshops**, reaching **300+ students** with **87% positive feedback**.
- Led a team of **15+ members** as the **Core Team Lead** of the Robotics Society of GGSIPU.

Hostel Welfare Committee, GGSIPU **Sep 2023 – Jun 2024**
President *New Delhi, India*
- Spearheaded initiatives improving facilities for **300+ residents**, achieving **83% satisfaction** in student surveys.