

AVI RAJ

New Delhi, India

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EDUCATION

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

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.

EXPERIENCE

UDIP Technologies Pvt. Ltd.

Aug. 2023 – Sept. 2024

Computer Vision Intern

New Delhi, India

- Collaborated with a **5-member** R&D group to develop and optimize computer vision algorithms, which increased efficiency by **over 20%** in real-world scenario.
- Trained YOLOv7 model with over **10,000+ annotated images**, led to **95% accuracy** in field testing under varied lighting.
- Used hyperparameter tuning for low-light detection improving **precision by 15%**.
- **Tech Stack:** Python, Django, OpenCV, YOLOv7.

PROJECTS

Chatty

May – July 2025

- Developed chat app with both **group & personal** communication with two factor authentication for **200+ users**.
- Improved **User Experience by 35%** with file sharing, typing indicators, emoji picker and emoji reactions.
- Accomplished a message latency of **<200ms** by implementing Redis socket caching and file rate-limiting.
- Designed and implemented Model View Architecture using Node.js, MongoDB, and Socket.IO for real-time communication.
- **Tech Stack:** React.js, Node.js, Socket.IO, MongoDB, Redis, JWT, TOTP, TailwindCSS.

QRVars

June 2025

- Built a web application that creates custom QRs to fill in dynamic forms thereby reducing data collection time by **60%**.
- Engineered real-time dashboard with Socket.io & Redis for monitoring of **300+** user interactions, QR scan logs and form submissions.
- Implemented automated email pre-filling with form variables, improving workflow efficiency by **45%**.
- **Tech Stack:** React.js, Node.js, Supabase, Redis, PostgreSQL, Socket.io, TailwindCSS, OAuth.

PhotoMingle

July – Sept. 2024

- Engineered a photo sharing application to automate the distribution of events photos using browser-side facial recognition.
- Accomplished secure retrieval of **2,000+ images** by implementing face-api.js to client-side control over photo viewing and downloading.
- Accomplished increase in user engagement by **40%** by integrating SendGrid for automated email notifications and updates.
- **Tech Stack:** React.js, Django, MongoDB, TailwindCSS, face-api.js, SendGrid.

Facial Recognition Systems

Apr. – June 2023

- Replaced traditional login systems with facial authentication solution that reduced time in logging in by **60%**.
- Increased security through real-time liveness detection and anti-spoofing techniques using OpenCV and Face_Recognition.
- Integrated a React-based admin dashboard to visualize **200+ authentication logs** and manage dynamic access roles.
- **Tech Stack:** OpenCV, Face_Recognition, React.js, Bootstrap.

LEADERSHIP & VOLUNTEERING

KaruYantra: The Robotics Society, GGSIPU

Aug. 2023 – July 2024

Senior Coordinator

New Delhi, India

- Led a **15-member** team as **Core Team Lead** of the Robotics Society at GGSIPU, organizing **5+** technical workshops that engaged **300+ students** and received **87% positive feedback**.

Hostel Welfare Committee, GGSIPU

Sep. 2023 – June 2024

President

New Delhi, India

- Coordinated efforts that enhanced living standards of **300+ residents**, achieving **83% satisfaction** in student surveys.