

Ushnish Ghosal

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[Linkedin](#) | [Github](#) | [Portfolio](#)

Education

SRM Institute Of Science And Technology, Chennai
B.Tech in Computer Science And Engineering

June 2023 - May 2027
9.86 (Current)

Relevant CourseWork: Data Structures And Algorithms, Computer Organisation And Architecture, Advanced Programming Practice, Operating Systems, Object Oriented Design and Programming, Programming for Problem Solving, Image Processing, Artificial Intelligence, Python, C/C++, Java, SQL.

Skills

- **Programming Languages:** Python, Java, C and C++.
- **Modules:** PyTorch, Tensorflow.js, Keras, OpenCV, Mediapipe.
- **Scripting Languages:** HTML, CSS, JavaScript
- **FrameWorks:** Next.js, Node.js, Typescript
- **Database and Language:** MySQL, SQLite, MongoDB
- **Version Control Tools and IDE:** Git, Github, Visual Studio Code
- **Soft Skills:** Collaboration, Communication, Planning, Teamwork, Time Management, Leadership

Projects

→ TerraScan (2025) - AI + IoT Powered Autonomous Drone for Landmine Detection

- Uses **computer vision & deep learning models** to identify landmines from aerial/satellite/drone imagery with an **accuracy** of up to **95%**.
- Integrates **thermal, radar, and ground-penetrating sensors** for **enhanced accuracy** in detection.
- Provides instant **threat mapping with geospatial data**, assisting demining teams in safe removal operations.

Tech stack - Yolo v11, PyTorch, LIDAR, GPR, Thermal Camera, Raspberry PI, Drone Controlling.

→ Fit Fusion (2025) - 4th Prize at Bajaj Finserv Flex It Out

[Github](#)

- Uses **TensorFlow.js & MediaPipe** to analyze body movements and provides real-time feedback on the reps completed.
- **Automatically** differentiates between the exercise forms and calculates reps accordingly.
- The whole project **completely renders the Real Time Feed** on the **Client Side** instead of Server Side.

Tech stack - TensorFlow.js, Python, Node.js, HTML, CSS, JS, SQLite3.

→ Computer Vision Model for Coffee Bean Quality Assurance (2024)

Under the guidance of Dr. Krishnaveni S

- Developed a computer vision model to **accurately identify 7 types of defective coffee beans** within **batches of 1000** enhancing **quality control** for a leading industry client (name undisclosed).
- Created an **OpenCV-based** computer vision system for **precise size classification** of **six size categories**.
- Generated and validated JSON output files detailing **size classifications**, ensuring **consistent quality control**.

Tech stack - Python, OpenCV, numpy, Yolo v8.

Work Experience

→ Samsung Prism Project Intern, Samsung R&D Bangalore

November 2024 - Present

- Working on **Network Element Template** made from **FCAPS**
- Leveraging **LLMS and GAN** for generating Synthetic Data for Real Time Analysis of Data.

→ Technical Lead, IEEE CS SRM

August 2024 - Present

- **DVP Roadshow:** Coordinated a successful roadshow featuring high-profile speakers, including **Dr. Mohamed Rawidean Mohd Kasim** from the **Ministry of Science, Malaysia**, and **Dr. HR Mohan, IEEE Ambassador, Madras Section** regarding **Smart Agriculture**.
- **ICT Quiz Event:** Managed and **executed an ICT quiz competition**, which included organising the quiz, securing prize money, and engaging participants.

→ Associate Technical Head, Futurix SRMIST C. TECH ASSOCIATION

March 2024 - Present

- **ULTRON 3.0:** Spearheaded an **Ideathon, Photography and Videography Contest**, and a **Quiz Contest**, including designing and **setting up quiz questions with high accuracy**.
- **Lens-Lumina:** Organised a **successful photography and videography contest**, promoting creativity and technical skills among participants.

Certificates and Achievements

- Hacktober '22, GSSOC '24, SSOC '24 - *Contributor*.
- CS50 - Python - Harvard x Cambridge.
- AWS Cloud and Machine Learning Foundation.
- 5 Star Coder at HackerRank and CodeChef
- HackVita'25 Winner.