

Education

BTech, Computer Science and Engineering, Indian Institute of Technology Goa	CGPA : 7.92/10	2023 – Present
Class 12, CBSE, Sita Saran Memorial School, Hilsa	Aggregate: 91.8 %	2020 – 2022

Experience

Underwater Species Identification using Image and Video Feature Engineering (April 2025 – Present)

[Guidance of Dr. Clint P. George | IIT Goa]

- Developing a pipeline to analyze underwater images and videos for identifying aquatic species using feature engineering.
- Working on preprocessing techniques such as color correction, dehazing, and contrast normalization for underwater data.
- Implementing feature extraction using both handcrafted descriptors and pretrained CNN models..
- Exploring motion-based features through frame sampling for species identification.

TechStack: Python, OpenCV, scikit-learn, PyTorch, TensorFlow, NumPy, Matplotlib

Projects

Fraud Detection System[Github] October 2024

- Collaborated with a team to design a solution for detecting and categorizing fraudulent online platforms.
- Implemented SSL certificate validation to verify the legitimacy of websites.
- Implemented web scraping from websites to identify suspicious patterns and flag potential fraud.
- Integrated with the Goa Police database to cross-reference known fraudulent websites.
- TechStack: TensorFlow, OpenCV, Python, HTML, CSS

Peer to Peer File Sharing[Github][Demo] Jan 2025 – March 2025

- Developed a server-less file-sharing application enabling direct peer-to-peer transfers using WebRTC and PeerJS.
- Implemented a interface where users can connect via unique Peer IDs to share files securely and efficiently.
- TechStack: WebRTC, PeerJS, JavaScript, HTML, CSS

Student Management System[Github] Jan 2024 – April 2024

- Collaborated in a team of 5 to develop a web-based course registration system.
- Implemented a communication platform that enables interactions between students and professors.
- TechStack: HTML, CSS, JavaScript

Skills

Programming Skills:	Python, C++, C, JavaScript, HTML, CSS, VHDL, Bash, Shell-scripting, MIPS Assembly, R
Development Skills:	Machine Learning, Deep Learning, Natural Language Processing, Data Structure and Algorithm, Object Oriented Programming, Web Sockets, Web Scraping, Git, Github, Linux
Framework/Libraries/Tools:	NumPy, Pandas, Matplotlib, Seaborn, Scikit-learn, TensorFlow, Pytorch, Flask
Relevant Coursework:	Data Structure and Algorithms, Algorithm Design and Analysis, Discrete Structure, Probability and Statistics, Digital Circuit and Design, Software Tools

Positions of Responsibility

Core Member, Cyber Security Club	Core Member of Cyber Security Club (Infosec) of IIT Goa	(2024 – Present)
Student Mentorship Program	Selected to mentor 4 first Year students at IIT Goa	(2024 – Present)
Chess Representative	Chess Representative of chess club of IIT Goa	(2024 – Present)

Achievements

- Achieved a team rank of 661 in ICPC prelims 2024.
- Achieved 2nd position in Goa Police Hackathon '24 in respective problem statement with over 100+ participants.
- LeetCode: Knight, Max 1864, solved 500+ problems.
- Codeforces: Pupil, Max 1379, solved 400+ problems.
- CodeChef: 3 Star, Max 1743

Extracurriculars & Hobbies

- Playing Chess — Represented IIT Goa Chess Team as captain at Inter IIT Sports Meet 2024, held at IIT Indore.[Chess Profile]
- Quiz Enthusiast — Represented Quiz team of IIT Goa at Inter IIT Cultural Meet 2024 held at IIT Patna.