

AYUSH SUKHADAN NAIR

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Education

Fr. C. Rodrigues Institute of Technology

Bachelor of Engineering in Information Technology

• CGPA: 9.55/10.0

Vashi, Navi Mumbai

2022 – 2026

Work Experience

IISER Mohali x TIFR

Project Intern

Mohali, Punjab

June 2025 – Present

- Architecting **silicon sensor modules** for **high-energy physics experiments** with **3 team members**.
- Automating validation of **500 sensor wire bonds** using **ML models** and high-resolution scanner images.

Sports Mentoring Infusion - NGO

Remote

Backend + Analytics Developer

June 2025 – July 2025

- Developing production-grade application with **base authentication system** and **all core modules** implemented.
- Building platform architecture to serve **150+ users** across **4 user roles** (admins, students, coaches, volunteers).
- Implementing communication workflows to reduce manual coordination time by **70%** for **10+ coaches**.

IISER Mohali

Mohali, Punjab

Project Intern

July 2024 – June 2025

- Engineered fall detection system using **YOLOv8-OB** + **MediaPipe**, reducing false positives by **60%**.
- Created healthcare solution for **live monitoring and feedback** for immediate response.

Fr. Conceicao Rodrigues Institute of Technology

Vashi, Navi Mumbai

Developer Intern

July 2023 – June 2024

- Optimized college portal serving **1,000+ users** with enhanced performance and functionality.
- Built **information management system** for managing college data and information.

Projects

Delta Investments | *MERN Stack, AI Integration*

2024

- Architected investment platform with **real-time stock data** and **Gemini AI** integration.
- Implemented **auto trading feature** with AI-powered market analysis and risk management.

VaniConnect: Sign Language Transcriber | *Python, Computer Vision*

2024

- Constructed real-time gesture translation system with **85% accuracy** across **200+ sign patterns** for both **Indian and American sign languages**.
- **Won 1st place** in Summer Project Competition among **60+ participants**.

Expense Ease | *Java, JavaFX, MySQL*

2023

- Developed comprehensive expense tracking application with **CRUD operations** for transactions, savings, and budget management.
- Integrated **data visualization** with pie and bar charts for category-wise spending analysis and budget alerts.
- Built **borrow/lend tracking system** with automated due date reminders and user-friendly JavaFX interface.

Open Source Contribution Tracker | *React, Node.js, MongoDB*

2024

- Developed analytics platform to provide analysis and tracking for **20+ GitHub repositories**.
- Enabled users to view details of their open-source contributions and generate shareable links to showcase them on platforms like LinkedIn.

Achievements & Leadership

GirlScript Summer of Code (GSSOC'25)

Open Source Program

Selected Contributor

2025

- Contributed to **AlgoVisualizer** project by adding **custom array input feature** for sorting and searching techniques.
- Enhanced **frontend design** of documentation page, improving user experience and accessibility.

HackQuinox 2024 - CSI FCRIT

Mumbai, India

Top 5 Finalist

2024

Smart India Hackathon

Government of India

Internal Round Qualifier

2024

Computer Society of India - IT Department

FCRIT

Treasurer

2023

- Handled finance for CSI-IT events, managing budgets up to **INR 30,000** with sponsorship incentives.

Technical Skills

Languages: Python, Java, JavaScript, SQL

Frontend: React, HTML/CSS, JavaScript

Backend: Node.js, Express, MongoDB

ML/AI: TensorFlow, Scikit-learn, Computer Vision

Databases: MongoDB, MySQL, ChromaDB (Vector Database)

Tools: Docker, GitHub Actions