

EDUCATION

Kochi, Kerala **Cochin University of Science and Technology** **Oct 2022 – May 2026**
Bachelor of Technology in Computer Science & Engineering - **4th Year (7th Semester)**

Academic Achievements:

- CGPA: **9.6/10**
- Represented **India** at **European Rover Challenge 2024**, Poland (Team: Horizon, World Rank: 18th)
- Listed among Top **10%** Students in the Batch.

PROFESSIONAL EXPERIENCE

Embedded Intern **Brainspired Labs Pvt. Ltd.** **Jan 2025 - June 2025**

- Integrated dual 16-bit DAC with STM32H753ZI via I2C, improving signal accuracy by **40%**. Enabled UART communication on ESP32 with Android app for real-time frequency and voltage control.
- Integrated CJMCU-1334 audio DAC to esp32-s3 using I2S protocol & gained hands-on experience with AD5750 evaluation board.
- **Technologies used : STM32CUBE-IDE, Arduino IDE, Embedded C**

Software Developer Intern **Horizon Mars Rover, CUSAT** **Nov 2023 - Feb 2024**

- Developed and implemented a URDF-based robotic arm (**4 degree of freedom**) model with TF and Gazebo in ROS 2, including forward and inverse kinematics.
- Controlled a robotic arm using Arduino Due (32-bit ARM) and servo motors, improved motion precision by **35%** through real-time kinematics integration.
- **Technologies used : C++, ROS 2 (Humble), Linux, Arduino IDE, MERN Stack**

POSITION OF RESPONSIBILITIES

SIG AI Lead **IEEE Execom'24** **Jun 2024 – Dec 2024**

- Co-managed 5+ AI-related tech events at college in collaboration with other IEEE Leads.
- Conducted training sessions for juniors on AI and ML with 300-400 attendees.
- Led daily scrums with 6 IEEE leads, ensuring clear communication and timely delivery.

Team Lead **Horizon Mars Rover, CUSAT** **Oct 2024 – Jun 2025**

- Technical team of college responsible for building semi-autonomous Mars rover for competition.
- Led **large-scale Mars Rover** development by setting goals & managing cross-functional teams(50+ members).
- Ensured effective collaboration across mechanical, electronics, and software divisions ; also contributed as a full-stack developer.

PERSONAL PROJECTS

- **TrackSmart (GitHub)** : BECKN-compliant logistics tracker built with **Node.js, Express, MongoDB & EJS**. Offers real-time, multi-carrier shipment visibility using **OpenStreetMap** API & modular dashboards for sellers and customers.
- **Preventive AI (GitHub)** : Developed a distributed AI system for early cancer detection using **Python, TensorFlow, Node.js, and MongoDB**. Built scalable data pipelines for medical data with fault-tolerant processing, achieving **87%** accuracy on structured and unstructured inputs.
- **Diksha (GitHub)** : Multi-tiered web app with **EJS, Node.js, MongoDB & EC2 deployment**. Integrated **Vertex AI & Gemini API** for distributed AI services including problem-solving tools, syllabus generation & grading systems.

ACHIEVEMENTS

- Won **5 Hackathons** conducted by **Google Development Group , MLH, Inovact & Infosys**.
- **Deloitte - Technology Job Simulation**: Certificate of Completion.
- Solved **150+** programming problems across various platforms like **LeetCode , Hackerrank**, etc.
- **Jury Choice Award Winner** at AIC by **Accenture & Finalist** at DevsHouse'24 Hackathon by VIT Chennai.

SKILLS

Languages: Java, JavaScript, HTML5/CSS, C/C++, MySQL (Relational database), Python, NoSQL, OOPs

Technical Skills: Git & GitHub, Data Structure & Algorithm, React, AWS, Node.js, Express.js, Linux, Unit Testing, Agile, RESTful APIs, OS, Docker, NLP, AI-ML, DevOps, Gemini, PostgreSQL, Networking, DBMS.