

ROSHAN CYRIAC

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EDUCATION

Cochin University Of Science And Technology B.Tech. in Computer Science and Engineering	<i>2023 - 2027</i> GPA: 8.55
St. Antony's Public School Intermediate	<i>2020 - 2022</i> GPA: 7.8
St. Antony's Public School High School	<i>2018 - 2020</i> GPA: 9.2

EXPERIENCE

UI/UX Design Intern , Caspar Technologies Private Limited *April'24- May'24*
Completed a 30-day internship focused on UI/UX design and web development, delivering responsive interfaces and interactive elements. Key contributions included converting Figma designs into responsive layouts, developing a Simon memory game for mobile, creating a shopping website with secure login and cart functionality, and building scalable frontend interfaces using React.

PROJECTS

Expenditure Tracker – AI-Powered Web Application *Ongoing*
Developed a full-stack AI-powered expenditure management web application that acts as a personal financial assistant to help users track expenses, categorize spending, generate financial insights, and set budgets. Integrated an AI-powered chatbot to provide financial advice and spending analysis. Built using React for the frontend, Node.js for the backend, and PostgreSQL for the database, with AWS for cloud deployment to ensure scalability and reliability. Implemented secure authentication, optimized API performance, and efficient database queries to enhance user experience and system efficiency.

Open-Source Thrust Vector Control Rocket – VEGA R1 *march'25*
Developed VEGA R1, an open-source solid-fuel rocket featuring Thrust Vector Control (TVC) using Thejus SoC and Aries Board, India's first indigenous RISC-V-based processor. Implemented PID-based stabilization with real-time data from IMU sensors (accelerometer, gyroscope) via Seeed nRF52840. Designed a web-based telemetry system for live sensor data visualization and a 3D model representation of the rocket's movement. This project was open-sourced to promote Thejus SoC and Aries Board, addressing the lack of documentation and encouraging wider adoption in India's aerospace and embedded systems community.

SafeDisp, Mar Baselios College Of Engineering And Technology, Trivandrum *Arpil'24*
An AI based conveyor system that utilises image detection capabilities provided by the Roboflow 3.0 Object Detection model from RoboFlow and IoT technology to segregate bio-medical wastes into appropriate categories and keeps track of the amount of generated waste, along with ambient conditions of the room to ensure the safety and well being of workers. Additionally, temperature and humidity sensors were integrated into the system to continuously monitor the environment, ensuring safe working

conditions.

Self-Hosted Server with Cloud Storage and Remote Access

jan'25

Designed and deployed a self-hosted server using Ubuntu Server, enabling secure remote access, cloud storage, and dynamic DNS. Configured a static IP and optimized networking for reliability. Implemented DuckDNS for Dynamic DNS with automated IP updates via cron jobs. Deployed Nextcloud with Apache, MySQL, and PHP for secure file synchronization, integrating an external hard drive for expanded storage. Set up Tailscale VPN for encrypted remote access, ensuring seamless and secure server management. This project strengthened my skills in Linux server administration, networking, cloud storage, cybersecurity, and remote access solutions.

AI Chatbot with Smart Reminder Detection

dec'24

Developed an AI-powered chatbot using FastAPI that enables continuous conversation while intelligently detecting and extracting reminders from text messages. The bot leverages Natural Language Processing (NLP) to analyze user input, identify tasks, and autonomously schedule reminders. Built with a lightweight and scalable architecture, it ensures real-time processing and seamless interactions. This project enhances productivity by integrating AI-driven conversation flow with automated task management, making digital assistants smarter and more efficient.

ACTIVITIES

Paper Presentation, PSGR Krishnammal College for Women

October'24

"AI-Powered Microgrid Management and Supply Chain Optimization: Enhancing Energy Distribution and Demand Forecasting" National Conference on Supply Chain Strategies for a Sustainable Business, October 2024 Presented research on AI-driven solutions for microgrid management and demand forecasting, focusing on sustainable supply chain optimization.

Define'24, Mar Baselios College Of Engineering And Technology, Trivandrum

Arpil'24

Participated in the flagship 24-hour hackathon where I collaborated with a team in order to design a IoT based project which utilises image recognition capabilities to segregate bio-medical waste and ensure safety of biomedical waste management personnel and keeps track of the amount of generated waste

Dhishna, Cochin University Of Science And Technology, Kochi

Nov'23

Participated in the Annual Tech Fest of School of Engineering , CUSAT where I collaborated with a team of experts in developing a project that highlighted the use of computer code to channel spiritual energies, blending technology with the mystical aspect of Ojo Board

SKILLS

Programming Languages and Frameworks

AI agents, Node js, Networking , GenAI tools, React , Java , DSA in java, Object oriented programming in C++, HTML, CSS , Javascript, Image Recognition and Object Detection Using Roboflow and Yolo, C++, C Programming

Languages

English , Hindi , Malayalam