

Ryyan Safar

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Certificate Drive: Viewable Upon request

Education	Institute	Year	CGPA/Status
B.Tech., Electronics and Communication	Rajagiri School of Engineering and Technology, Kochi	2023–27	8.77
CS50: Introduction to Computer Science	HarvardX	2024	Verified
ISWDP – Level 1 Certification	IISc Bangalore, Samsung Semiconductor, Synopsys	2025	Completed

CAREER OBJECTIVE

- Electronics and Communication Engineering student passionate about embedded systems and Linux-based development. Focused on building reliable, real-world solutions and eager to contribute to projects that combine hardware, software, and innovation.

PROFESSIONAL EXPERIENCE

- Research Intern | AugsenseLab** May 2025 – Jun 2025
 - Built a real-time IMU + GNSS fusion system using **Kalman Filter**, achieving centimeter-level positioning accuracy.
 - Developed a Flask-based dashboard for visualizing live sensor and weather data using NetCDF models.
 - Designed a precipitation prediction tool integrating proprietary sensing data with forecast models.
 - Enhanced rapid prototyping and debugging skills across embedded-software interfaces.
- Technical Coordinator & Social Media Manager | TeamApt Academy LLP** Sep 2024 – Present
 - Designed, built, and maintain the official website **teamapt.in** using Flask, HTML, CSS, and JavaScript.
 - Handle technical operations, website optimization, and content integration for live learning modules.
 - Manage TeamApt's official social media presence across Instagram, LinkedIn, and Facebook — creating and scheduling posts, analyzing engagement, and improving outreach.
- Vice President | SOCIAL – Student Open Collaboration for Innovative Applications** Nov 2023 – Jan 2025
 - Led technical and outreach initiatives for campus-wide innovation programs.
 - Organized workshops and speaker sessions on social entrepreneurship and tech-for-good.
 - Contributed to content creation for the student newsletter "**Chronicles**", featuring student-led innovations.
- Campus Ambassador | Perplexity AI – Comet Program** Oct 2025 – Present
 - Represent **Perplexity AI** across university networks, promoting responsible AI adoption and productivity tools.
 - Generated verified outreach leads and provided user feedback to improve campus engagement.
- Millennium Fellow | Millennium Campus Network (MCN)** Aug 2025 – Present
 - Selected as a UN Millennium Fellow representing **APJ Abdul Kalam Technological University**.
 - Co-developing the project "**Overflow Ends with Us**", focused on smart waste disposal and sustainability awareness.
 - Conducting outreach and awareness sessions aligned with UN SDG goals.

TECHNICAL SKILLS

- Programming Languages:** C, C++, Python, Embedded C, Verilog HDL, SystemVerilog, Java, SQL, HTML, CSS, JavaScript.
- Hardware Platforms:** Raspberry Pi, ESP32, Arduino, NodeMCU, 8051 Microcontroller, FPGA (Xilinx), Sensors and Actuators (IMU, GNSS, Ultrasonic, LDR, etc.)
- Tools & Frameworks:** Flask, OpenCV, TensorFlow, NumPy, Matplotlib, NetCDF4, wrf-python, MySQL, MongoDB, AutoCrat, ROS2, Git.

- **Operating Systems:** Linux (Ubuntu, Arch, Raspberry Pi OS), macOS, Windows.
- **Domains of Interest:** Embedded Systems, Rapid Prototyping, Linux Systems and Kernel, Data Visualization, and Cloud Computing.

POSITIONS OF RESPONSIBILITY

- **Co-Section Student Representative | IEEE Kerala Section** Jan 2025 – Present
 - Representing over 20,000 IEEE student members across Kerala; coordinating statewide LINK initiatives and student engagement programs.
- **LINK Representative | IEEE RSET Student Branch** Jan 2025 – Present
 - Liaison between IEEE LINK and the RSET Student Branch; support technical event planning and chapter coordination.
- **Technical Coordinator | IEEE RSET Student Branch** Mar 2024 – Jan 2025
 - Provided technical assistance for workshops and events; automated certificate workflows using Google AutoCrat.
- **Technical & Professional Development Coordinator | IEEE India Council** Apr 2024 – Dec 2024
 - Assisted in organizing AISWYLC'24 and R10 Code-a-thon; contributed to technical content and outreach campaigns.
- **Millennium Fellow | Millennium Campus Network (UN Initiative)** Aug 2025 – Present
 - Representing APJ Abdul Kalam Technological University; leading sustainability project “Overflow Ends With Us.”
- **Volunteer | TinkerHub** May 2025 – Present
 - Conducted a 5-day Python Study Jam for over 100 participants across Kerala; mentored beginners in programming.

SELECTED PROJECTS

- **AI-to-AI Conversational System (Mis-Communicationator)** *Raspberry Pi 4 · llama.cpp · Python · GPIO*
 - Built a self-sustaining dialogue system between two AIs using locally hosted models on a Raspberry Pi 4.
 - Optimized performance under thermal limits (82°C); showcased at **Maker Thursday, TinkerSpace Kochi**.
- **Smart Glass Mount for the Visually Impaired** *ESP32-CAM · Python · YOLOv5 · OpenCV*
 - Designed a modular attachment for existing glasses providing obstacle detection and audio cues.
 - Awarded the **Real-World Impact Award** at HackSus 4.0 among 55+ teams.
- **CNC Plotter for PCB Design** *Arduino UNO · GRBL · Stepper Motors · G-code*
 - Built a cost-effective CNC plotter using repurposed components to automate PCB layout drawing and etching.
- **Raspberry Pi NAS with RAID (Work in Progress)** *Linux · mdadm · Samba · OpenMediaVault*
 - Developing a RAID-1 network storage system with automated backup and cross-platform file sharing.
- **Overflow Ends With Us (UN Millennium Fellowship Project)** *IoT · Sustainability · Waste Management*
 - Leading a UN-recognized initiative to develop a smart bin system promoting responsible plastic disposal.

Additional Projects: Voting Machine • Sign Language Translator • Digital Stopwatch • Humidity Alert System • Dual Op-Amp Signal Generator • Automatic Street Light • Hospital Finder • Password Manager

IDEATHON ENTRIES & PROTOTYPE SUBMISSIONS

- **Wildfire SAIfety** *Computer Vision · Disaster Management*
 - Proposed an AI-driven wildfire detection and confirmation model integrating satellite imagery and drone verification.
 - Shortlisted to the penultimate round of Talentime Idea Pitching Competition.

- **KSEB Smart Meter Alternative** *IoT · OCR · GIS Mapping*
 - Conceptualized a Bluetooth-enabled OCR camera module for automated meter readings transmitted to POS systems.
 - Mapped readings using GIS; ranked among the **Top 10** entries nationwide.
- **Down Syndrome Companion App** *AI · Accessibility · Emotion Detection*
 - Designed a supportive platform leveraging emotion recognition (Amazon Rekognition + GPT-4o) to enhance inclusivity.
 - Submitted for **SlashKey 3.0 and IIC Ideathon**.
- **Safe Sight** *Computer Vision · Women's Safety*
 - Proposed a surveillance analytics system using YOLO and Mediapipe for real-time alert generation and crime detection.
 - Implemented multi-tier alert system (Yellow, Orange, Red) for prioritized police response.

REFERENCES

- **Academic Reference:**

Mr. Nitheesh Kurian
 Professor, Department of Electronics and Communication
 Rajagiri School of Engineering and Technology, Kochi
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 Phone: (+91) 94974 13879

- **Professional Reference:**

Mr. Shone Jose
 IEEE India Council SAC Vice Chair (2024–2025)
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SELF DECLARATION

- I hereby declare that the information provided above is true and correct to the best of my knowledge and belief.

As of November 2025