

Riya K Alex

Bengaluru | riyakalex5@gmail.com | [linkedin.com/in/riyakalex](https://www.linkedin.com/in/riyakalex) | github.com/riyakalex | riyakalex.netlify.app

EDUCATION

University of Visvesvaraya College of Engineering (UVCE)

Bengaluru, KA

B.Tech in Electronics and Communication Engineering

2024 – 2028

- **Current GPA: 8.62/10.0** (3rd Semester)
- **Honors:** Reliance Foundation Scholar

TECHNICAL TOOLKIT

Hardware Design: KiCad, Circuit Simulation, Sensor Interface Calibration

Logic Design: Verilog (RTL Design Fundamentals), Digital System Architecture

Programming: Embedded C (Firmware Logic), C++, Python

Creative Systems: DaVinci Resolve (VFX Fusion), Canva, Adobe Photoshop, CapCut

RESEARCH & TECHNICAL PROJECTS

AI-Integrated Aqueous Filtration Research | *Project Lead*

Jan. 2026 – Present

- Developed an automated water purification system utilizing **AI-calibrated sensors** for turbidity monitoring.
- Focused on **hardware-to-software interfacing**, mapping real-world analog inputs to digital reasoning pipelines.

Automated Kitchen Gas Monitor & Alert System | *Hardware Developer*

Oct. 2025 – Dec. 2025

- Engineered a domestic safety monitor using **MQ-series gas sensors** for immediate leakage detection.
- Optimized **embedded firmware reliability** to ensure high-fidelity signal processing and zero-fail alert triggering.

ISRO Bharatiya Antariksh Hackathon | *Geospatial Analysis*

Aug. 2025

- Researched autonomous reasoning pipelines for satellite data processing and **geospatial data analysis**.
- Leveraged **LLM orchestration** to automate the synthesis and processing of satellite-derived technical data.

Sustainable Organic Waste Automation | *Research Contributor*

2025

- Designed a sensor-based compost automation system featuring **closed-loop hardware feedback** cycles.

LEADERSHIP & CREATIVE WORK

Marvel UVCE | **VFX & Video Editing Contributor — Level 2**

2025 – Present

- Technical contributor to VFX pipelines via **DaVinci Resolve (Fusion)**; view work at [Marvel Portfolio](#).

E-Cell UVCE | **Content Team Member**

2025 – Present

Student Entrepreneurship Cell

Bengaluru, KA

- Responsible for the **dissemination and management of technical content** and digital correspondence.

Cultural Club | **Design Team Member**

2025 – Present

UVCE Student Body

Bengaluru, KA

- Managing the **visual architecture and creative identity** for major institutional cultural initiatives.

Technical & Creative Writer

Ongoing

- Authored **100+** poems exploring the intersection of human emotion and technical precision (See [portfolio](#)).