

## Neil Anthony

Bengaluru, Karnataka

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GitHub: <https://github.com/neil24-c>

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## Career Objective

Passionate and driven Computer Science and Engineering student from VTU with hands-on project experience in IoT, AI, and Computer Vision. Eager to apply practical knowledge in real-world challenges.

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## Education

### B.E. in Computer Science and Engineering

Cambridge Institute of Technology, Bengaluru

Apr 2026 (Expected)

### Pre-University – PCMB

St. Joseph's PU College, Bengaluru

May 2022

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## Technical Skills

- Programming: Python, C, HTML, CSS
  - Tools & Libraries: OpenCV, YOLOv5, NumPy, MySQL, Qiskit, IBM Quantum
  - Hardware: Raspberry Pi, ESP32, Sensors (PIR, DHT11, Gas)
  - Others: Git, PowerPoint, Public Speaking, Event Management
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## Projects

### 1. Cybersecurity Risk Assessment in Healthcare Networks

Designed a predictive ML model to assess cyber risks across healthcare systems (doctor PCs, patient monitors, EMR servers). Built XGBoost and Random Forest models with feature extraction and selection from healthcare logs. Integrated a full-stack app with user authentication, attack-type identification, and risk-level prediction.

**Tech:** Python (Flask), XGBoost, Random Forest, HTML/CSS (frontend), SQLite, Pandas, Scikit-learn

### 2. Real-Time Traffic simulation using IoT and Quantum Computing

Designed a miniature traffic management system where IoT devices (Raspberry Pi + camera) detect and count vehicles in real time. Integrated Qiskit-based quantum optimization to dynamically allocate green signal time, simulating smart traffic flow on a small-scale prototype.

**Tech:** Python, OpenCV, Raspberry Pi, Qiskit, IBM Quantum, IoT Sensors/Camera

### 3. Smart Doorbell System using IoT

Built a smart doorbell using Raspberry Pi and ESP32-CAM to capture real-time images and notify users remotely via Wi-Fi. Integrated Python scripts to manage sensor input and camera feed.

**Tech:** Python, Arduino IDE, ESP32, Wi-Fi, Raspberry Pi

### 4. YOLOv5 Affine Detection System

Developed an advanced object detection system using YOLOv5 with affine transformation. Enabled rotation, scaling, and distortion handling in object tracking for smart surveillance and IoT edge deployment.

**Tech:** Python, YOLOv5, OpenCV, TensorFlow, Labelling

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## Internship Experience

### Data Analyst Intern

Archdiocese Communication Centre, Bengaluru

Jun 2023 – Nov 2023

- Built and maintained data logs for all service users. - Extracted and analyzed community usage patterns.

### Center Trainer (Volunteer)

U&I NGO, Bengaluru

Aug 2024 – Present

- Mentored underprivileged children in life skills and spoken English. - Led large sessions to improve community outreach.

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## Certifications & Achievements

- **IIT Bombay E-Summit 2023** – Participated in the E-summit
  - **Ideathon 2023** – 2nd Best Young Entrepreneur Award
  - **TEDxCIT Event Manager**, Bengaluru
  - Winner – **Modern United Nations (MUN) 2022**
  - Hackathon participant and winner in multiple intercollegiate events
  - State representation in Football, Athletics, and Basketball
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## Leadership & Activities

- Captain, College Football Team
  - Student Council Member & Cultural Head (2021)
  - NCC Cadet (2021–2022)
  - Organized State-Level Football Tournament with 1000+ participants
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