CHRIST
(DEEMED TO BE UNIVERSITY)
BANGALORE · INDIA

JOSHUA PK KURIAN

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ACADEMICS

Qualification	Institute	Board / University	Year	% / CGPA
B. TECH	CHRIST (Deemed to be University), Bengaluru		2025	8.1/10
XII	Clarence High School	ISC	2021	78.00%
X	Clarence High School	ICSE	2019	83.67%

CERTIFICATIONS / PUBLICATIONS

- **RedHat System Administration | Red Hat Training & Certification**
- **Introduction to Cybersecurity | Cisco Networking Academy**
- **GPU Architectures and Programming |IIT Kharagpur (NPTEL)**
- **WISE-PaaS Core Level - I, II, III | Advantech**

INTERNSHIPS

Advantech 2025	• Completed a 3-month technical internship at Advantech, gaining hands-on training across multiple departments including CTOS, Application Engineering, Sales, RMA, and SCM. • Worked with Advantech's Wise-PaaS platform to understand IoT solution deployment and integration in industrial applications. • Represented Advantech at India Electronics Week (IEW), engaging with industry professionals and showcasing IoT hardware solutions to a wide audience.
Cognifyz Technologies 2024	• Analyzed a restaurant dataset using python, matplotlib library and Power BI. • Identified patterns and distributions and performed geographic using these tools.
Rapid Info Solutions 2023	• Developed a web-based application for to monitor CCTV feeds in real-time using HTTP Live Streaming (HLS) protocols, JSON data structures, and Python server hosting. • Designed a user-friendly interface for switching between single and multiple CCTV feeds. • Managed version control via GitHub and gained insights into practical applications of web media technologies and collaborative development.

PROJECTS

Secure Cardiac Monitoring October 2024	• Developed a smart cardiac monitoring system leveraging AD8232 (ECG) and MAX30102 (Heart Rate and SpO2) sensors, with a Raspberry Pi 4B handling edge processing for low-latency data analysis. • Implemented Hyperledger Fabric blockchain to ensure secure data storage, integrity, and authentication, combined with Attribute-Based Encryption to mitigate unauthorized access and tampering risks. • Deployed AWS IoT Greengrass for scalable edge runtime management across multiple devices and utilized Prometheus and Grafana to collect, visualize, and monitor system performance metrics in real time.
Smart Dustbin May 2024	• Developed an automated waste segregation system using a Raspberry Pi 4B and TensorFlow Lite for on-device classification into four categories: Paper/Cardboard, Glass, Plastic, and Metal. • Achieved 91% classification accuracy across 15 trials using a 720p HD webcam for real-time waste detection. • Utilized an MG996R servo motor with 180° rotation and a 2:1 gear mechanism to rotate the bin 360°, enabling precise compartment alignment for eco-friendly waste disposal.
SmartLib October 2023	• Developed an efficient library management system using an MFRC522 RFID module (13.56 MHz) for passive card scanning, integrated with an Arduino Uno R3 connected to a laptop via SPI for seamless data transfer, and a device camera for barcode recognition. • Built a user-friendly Python UI using Tkinter for managing book issuance, returns, and fine calculations, leveraging OpenCV and Pyzbar for real-time barcode decoding and maintaining records in Excel. • Automated and streamlined library operations, significantly reducing manual intervention in borrowing and returning processes, while ensuring accurate and efficient data handling.
Intrusion Detection System April 2025	• Implemented an Intrusion Detection System (IDS) using machine learning models including RandomForest, XGBoost, and MLP on the UNSW-NB15 dataset, achieving high accuracy in detecting network attacks. • Simulated real-world attacks and deployed the trained IDS model on an industrial edge device (Advantech EI-52) to evaluate detection performance in a practical environment

POSITIONS OF RESPONSIBILITY

Industry Institute Interaction Cell (IIIC), 2022-2024	• Acted as Master of Ceremonies for multiple events, ensuring smooth program flow and engaging audience interaction. • Assisted with logistics for various events, contributing to planning, coordination, and execution.

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	• Enhanced organizational and communication skills through active participation in event management activities.

ACADEMIC ACHIEVEMENTS

- Won third place along with a cash prize for the "Automated Irrigation System" project at ConnectXpo, Foobar-2024 (Computer Science Engineering technical fest).

EXTRA CURRICULAR ACTIVITIES

Just A Minute (JAM), 2024	Secured second place in JAM (Just A Minute) competition at Blossoms among 80 participants.
Ace Clutch, 2024	Secured third place in Ace Clutch at Foobar 2024, an esports competition featuring Valorant.