

# Katreddi Rohith

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📍 Tanuku, Andhra Pradesh.

🌐 Rohith katreddi



## Profile

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Cybersecurity Researcher and Application Developer at **IBM India**, specializing in **Secure SDLC** and **Enterprise Application Integration (EAI)**. Currently leading API integration for **Project BAIL (Kyndryl)**, ensuring secure and seamless data exchange across large-scale middleware platforms.

Distinguished as a researcher in **6G-enabled Internet of Medical Things (IoMT)**, with a focus on **Blockchain-integrated** defensive frameworks and **IPv6 protocol optimization**—achieving a **30% efficiency gain** in simulated network environments. My academic contributions include research **Accepted by Springer Nature** and **Under Review at Scientific Reports (Nature Portfolio)**, demonstrating a mastery of the **MITRE D3FEND** matrix and decentralized data integrity.

Combining hands-on **VAPT** experience—where I identified critical SQL injection and DoS risks for university infrastructure—with a background in architecting end-to-end **Enterprise Insurance Ecosystems (LIC)**. I am committed to advancing resilient healthcare infrastructures through the intersection of **Zero Trust Architecture** and emerging 6G technologies.

## Education

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2021 – 2025

Gurgaon

**BACHELOR'S IN COMPUTER SCIENCE AND ENGINEERING**

*BML MUNJAL UNIVERSITY*

Awaiting For Certificate

- **Courses:** Network Security, Security Attack and Defence, Operating Systems, Object Oriented Programming, Database Management Systems, Web Programming.

2019 – 2021

Vijayawada

**Intermediate Board of Education**

*Narayana Junior College*

2016 – 2019

Tanuku

**Secondary School of Education**

*St. Francis De Sales E.M High School*

## Certificates

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- Google Cybersecurity Professional Certificate
- Microsoft Cybersecurity Analyst
- 67th Milestone and Hero's Challenge Coverage Team 2024(BML Munjal University)
- Certified Ethical Hacker (CEH) - Global Competition
- 67th Milestone and Hero's Challenge Marketing Team 2023 (BML Munjal University)
- Training Certificate in Cyber Security (AcmeGrade)

## Skills

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**Security:** Risk Assessment, Pen Testing, Web App Testing, Automation.

**Tools:** Burp Suite, SIEM, Nessus, Metasploit, Wireshark, Nmap, Splunk, QRadar, Gobuster, JhonTheRipper, Matlab, Simulink.

**Programming:** C, C++, Python, HTML/CSS/JS, Bash

**Systems:** Linux, Windows

**Soft Skills:** Communication, Teamwork, Leadership, Time Management.

## Professional Experience

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Dec 2025 – Mar 2026

Bangalore

**Application Developer**

*IBM India PVT Ltd*

- **Project BAIL (Client: Kyndryl):** Actively contributing to **API Integration** and enterprise system connectivity, ensuring seamless data exchange across middleware platforms.
- **Enterprise Architecture:** Applying foundational knowledge of **Enterprise Application Integration (EAI)** to build scalable and secure software solutions.
- **Secure Development:** Implementing **Secure SDLC** practices to mitigate risks during the integration phase, aligned with enterprise-level security standards.

- **Agile Collaboration:** Working within a collaborative **Agile environment** to meet rigorous client requirements and project milestones.

May 2024 – Aug 2024

#### **Penetration Tester**

*BML Munjal University*

Educational institution focused on technology and engineering.

- Found major risks in IT Systems, including outdated Policies, misconfigurations, and SQL injection.
- Simulated attacks and wrote reports that led to real fixes.

Jul 2023 – May 2024

#### **Photography and Cinematography Club President**

*BML Munjal University*

Educational institution with a vibrant student community.

- Led a team of 25+ members in organizing exhibitions, short film productions, and workshops, increasing club visibility and engagement by 80%.
- Initiated a groundbreaking policy enabling students to monetize their skills in photography and cinematography, showcasing professionalism within the university.

May 2023 – Aug 2023

Hyderabad

#### **Web Developer and Application Tester**

*Adepto Geoinformatics*

Company specializing in geoinformatics and web solutions.

- Designed and Tested web applications for refurbished Apple gadgets, ensuring functionality, Scalability, and Security compliance.
- Played a key role in application testing, identifying critical issues, and contributing to the project delivery.

### **Publications & Research**

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#### **A Strategic Cybersecurity Framework Leveraging MITRE D3FEND for Resilient 6G-Enabled IoMT Healthcare Networks**

*Accepted - Journal of Discover Internet Things (Springer Nature)*

- Implementing IPv4 Protocol in the IoMT (Internet of Medical Things) with 20% more Efficiency in the stimulated Network.
- learned about the 6g Technology and we are working on implementing the things.

#### **A MITRE D3FEND Guided Blockchain Based Cyber Resilient Framework for IPv6 Based 6G Enabled Healthcare Networks**

*Under Review – Scientific Reports (Nature Portfolio)*

- **Key Contribution:** Integrated **Blockchain technology** to ensure decentralized data integrity and non-repudiation in healthcare telemetry.
- **Technical Impact:** Demonstrated a **30% efficiency improvement** in simulated network environments by optimizing **IPv6 protocol stacks** for 6G connectivity.
- **Framework:** Leveraged the **MITRE D3FEND** matrix to design active cyber-defensive countermeasure selection for IoMT devices.

### **Projects**

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Jul 2025 – Present

#### **Insurance Management Software (IMS) | LIC Ecosystem Portfolio**

- Architected an end-to-end operations platform to digitize the **policy lifecycle**, focusing on automated claims processing and secure payment integration.
- Designed the system architecture to handle **large-scale enterprise data**, ensuring high availability and seamless customer-to-backend interactions.
- Applied **secure system design principles** to protect sensitive financial and personal data within the insurance framework.

Jan 2025 – Feb 2026

#### **Implementation of IPv4, IPv6 Protocol in a 6G Hospital Network for IOMT (Internet Of Medical Things) Devices.**

*Resear*

- Implementing IPv6 and also IPv4 Protocols in the IoMT (Internet of Medical Things) with 20% more Efficiency in the stimulated Network.
- learned about the 6g Technology and we are working on implementing the things.

Sep 2024 – Dec 2024

#### **IPv6 Implementation in IOT Devices**

*Project focused on integrating IPv6 protocols into IoT devices.*

- Worked on Implementing IPv6 protocols in IoT devices to enhance network scalability, security, and communication efficiency.
- Improved network effectiveness, directly addressing next-generation communication needs.

- Jul 2024 – Dec 2024      **End-to-End Encrypted Chatting Application**  
*Development of a secure chatting application.*
- Designed and developed a secure chat web application with **AES** encryption for messages and **SHA-256** for secure hashing of communication data.
  - Prioritized user privacy and security, showcasing expertise in cryptographic principles and secure application development.
- Jan 2024 – Aug 2024      **Vulnerability and Pentesting for BML Munjal University**  
*Conducted vulnerability assessments for University.*
- Identified and reported critical vulnerabilities in the university's Network, which were acknowledged and resolved.
  - Scanned for vulnerabilities like DoS risks, outdated configs, and SQL Injection.
  - This experience reflects my ability to proactively detect and address security gaps, a critical skill for conducting audits and tests as a consultant.
- Oct 2021 – Dec 2021      **Heartbeat Monitoring System**  
*Development of a heart beat monitoring system.*
- Heart Beat Monitoring System built with Arduino microcontroller for wireless data transmission and real-time heart rate monitoring.
  - The system is affordable, portable, and adaptable, making it perfect for a variety of uses, from medical monitoring to fitness tracking.
- May 2026      **IBM CP4S 1.10 Training Curriculum (Freelance)**  
 Architected a 20-module training program covering **Red Hat OpenShift** installation, **Edge Gateway** connectivity, and CP4S maintenance.

## Competitions & Workshops

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- Oct 2022  
 Noida      **Won First Price in Capture the Flag Achievement**  
*Zenavia X Uphoria Bennett University Fest' 22*
- Mar 2025  
 Delhi      **Cyber Security and Internet Safety Workshop at IIT Delhi**  
*Organised by World Technocon In Association with TRYST-2025*
- Mar 2025  
 Hyderabad      **Ethical Hacking With Cyber Security Workshop at BITS Pilani**  
*Organised by Techobytes & Pearl'25 Bits Pilani, Hyderabad Campus*

## Interests

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- Cybersecurity Enthusiast
- Exploring Vulnerabilities
- Photography Enthusiast
- Listening
- Solving Puzzles