Keerthi Prabu P

Profile

Focused on penetration testing, software testing, and hardware security. Hands-on experience in cybersecurity, embedded systems, and power systems. Skilled in identifying security vulnerabilities and optimizing system performance. Active member of Team bi0s, contributing to security research and assessments.

Education

BTech Electrical and Computer Engineering Amrita School of Engineering Current GPA: 8.5	2022 – 2026 Kollam
Higher Secondary Arogyamatha HSS GPA: 9.3	2020 – 2022 Palakkad
Senior Secondary St. Gregorious English Medium School GPA: 8.8	2008 – 2020 Palakkad

Club Activities

Adversary Village	2024 – present
Staff	

Played a key role in organizing **BSides Kochi 2025** security conference and actively organized weekly hacker meetups on Discord for team enrichment as part of **DEFCON** Trivandrum chapter.

Team bi0s 2023 – present

Security analyst

Working on **network penetration testing**, focusing on wireless attacks, Man-in-the-Middle (MITM) attacks, and Active Directory exploitation gaining hands-on experience via Hackthebox environment.

Robotics Club 2022 – 2023

Robot control developer

Worked as a developer on **PID applied robotics** for precise motion and stability, focusing on line-following and maze-solving applications.

Projects

Decentralized Smart Metering System 01/2025

Contributed to **creating a simulated environment in MATLAB Simulink** for generating sample energy consumption data. Developed a **backend API** to process this data, which was then integrated into a **blockchain-powered application** created by teammates for secure and tamper-proof energy monitoring.

Nova Robot 12/2024

11/2024

Worked on **chatbot** interface for the navigation robot Nova. Chatbot is based on speech-to-text and text-to-speech functionalities and process it via LLM api, enabling the robot to process voice commands and interact with users effectively.

Embedded Drowsiness Detection System

Conducted **performance analysis** on Raspberry Pi 3 and 4 to evaluate real-time processing capabilities. By utilizing facial landmark detection and eye aspect ratio (EAR) analysis with **OpenCV and Dlib** enhanced the detection accuracy and system efficiency.

Saheli - RAG implemented Healthcare Chatbot 04/2024 Implemented backend API and frontend UI for Saheli, a mental health chatbot. Additionally, worked on understanding Retrieval-Augmented Generation (RAG) models, fine-tuning them to improve response accuracy and enhance user interactions. Diary app 09/2023 Open-source diary application for PC, using Java Swing. Integrated with MySQL **database** for secure entry storage. The app allows users to write and save daily notes, providing a simple and efficient digital diary experience. **Achievements RVCE x IITB CTF 2024 Finalist** 09/2024 Qualified for the finals in the RVCE x IITB CTF 2024 after successfully clearing the preliminary rounds **Platinum Badge** 01/2024 Hackthebox Listed on top 40 hackers list in India during HTB season IV and awarded platinum badge. **EyesopenCTF Finalist** 10/2023 **EOCON** Ranked 7th in EyesOpenCTF, showcasing strong problemsolving skills. **First in Robotic Design and Programming** 02/2019 First Lego League Contributed in programming at FLL regionals (South India) event **Community Outreach** Live in labs 2025 - present Participated in the Live-in-Labs program, where I learned and applied Participatory Rural Appraisal (PRA) tools, Social Development Analysis (SDA), and other research methodologies. Conducted a small-scale implementation on campus to analyze environment. The project is still active as we plan to scale it to a village for identifying and addressing real-world challenges. **Cyber Hero - Cyber awareness camp** 10/2024 Student Social Responsibility programme on security awareness by conducting live hacking demos, quizzes and secure use of cyber space. Certificates **Introduction to Azure Purple Teaming Fundamentals Pentesting** Training Certification by Offline hands-on training and Cyberwarfare Labs certification course by Altered

Security

Skills

Python (Modules like Requests, Selenium, Flask, etc) | Autocad | C++ | Docker | Java | **Active Directory Enumeration** | **Sliver** (c2 framework)

Languages

- English, Malayalam, Tamil to Read, write, Speak and Understand.
- **Hindi** to Read, write, and Understand.