

RAHULKRISHNAN RAVINDRAN

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EDUCATION

Amrita Vishwa Vidyapeetham, Amritapuri, Kerala	Oct 2021 - Sep 2025
Bachelor of Technology in Computer Science	8.71 GPA
Narayana-E-Techno School, Thane, Maharashtra	2021
Higher Secondary School [12 th Grade]	94%
Vydehi School Of Excellence, Bengaluru, Karnataka	2019
Secondary School [10 th Grade]	88%

SUMMARY

Enthusiastic, eager to explore innovative ideas, contribute to meaningful projects, and apply analytical skills and academic knowledge to real-world research endeavors.

TECHNICAL ACHIEVEMENTS

- | | |
|---|----------------------------|
| Team Lead, ACM Cybersecurity | Apr 2022 - Present |
| <ul style="list-style-type: none">Founded a cyber security domain within the ACM group, providing guidance and training, established the framework and optimized the operation of the club.Led the team to effectively compete in national and international Capture the flag competitions and hackathons. | |
| Student Researcher, Amrita Vishwa Vidyapeetham | Feb 2022 - Present |
| <ul style="list-style-type: none">Collaborated with academic mentors and researchers to tackle complex challenges, involving aspects of the research process, from concept to implementation and analysis.Teamed up with industry professionals and scholars, which helped to improve the projects and get insights into the papers. | |
| Community Outreach Project, Kindshare (Freelance) | Nov 2023 - Dec 2023 |
| <ul style="list-style-type: none">Built and maintained a dynamic website that collects and analyzes data for both the donation collection and the volunteers affiliated to multiple non-profit organizations. | |
| Web Exploitation & Penetration testing, Team bi0s | Aug 2021 - Feb 2022 |
| <ul style="list-style-type: none">Discovered and experimented about the cyber security environment and how penetration testing and capture the flags work in the real world scenario.Practical experience through practice by playing and developing real time CTFs. | |

VOLUNTEER EXPERIENCE

- ICPC Coding Competition - Amritapuri, Kerala (2022)** : Coordinator of the coding program.
- ACM Penetration Testing - Kollam, Kerala (2022)** : Coached a group on pen-testing tools.
- Kindshare - Kayamkulam, Kerala (2022)** : Facilitated an application to aid with donation drives.

SKILLS

- Languages:** C++, C, Java, Python, HTML, PHP, JavaScript, Arduino.
- Operating systems:** Windows, Ubuntu, Kali Linux, Parrot OS, Linux, Mac.
- Security Exploitation tools:** GHex, Web-Hook, WireShark, Burp Suite, SQLmap, Nmap.

HACKATHON & CTF

Flipkart Grid 4.0 & 5.0

- Participated in the Flipkart Grid 4.0 Software Development challenge as a part of the duo team.
- Learned about non-fungible tokens(NFT) and how to integrate them with e-commerce applications.
- Lead a team in Flipkart Grid 5.0 in both the Software Development and Information Security tracks where we learned about system vulnerabilities and data security.

Smart India Hackathon 2023

- Competed in the Smart India Hackathon 2023, where they devised solutions to real-world issues and successfully implemented them.
- The drone was designed for port surveillance and proposed as an application to assist farmers and fishermen in predicting meteorological conditions.

CTF & Hardware Workshop - ACM

- Organized a detailed event on CTF competition and a hands-on microcontroller workshop.
- Conducted a microcontroller workshop, introducing participants to hardware programming and IoT applications such as ESP32/8266, Raspberry nano/pi and Arduino modules.

Xploit CTF 2023

- Established and maintained a dedicated CTF website for a 24-hour duration whilst ensured the website's functionality, security, and performance throughout the event
- Organized and hosted Xploit CTF 2023, a Capture The Flag cybersecurity competition, developed a range of challenges to evaluate participant's penetration testing skills.

PROJECTS & PUBLICATIONS

Adaptive Payload Defense: A Cutting-Edge k-NN Framework for Web Security 2024

International Conference on Intelligent Computing, Communication & Convergence (ICI3C)

- Designed a website extension that has the capability to construct Penetration testing payload using a k-NN machine learning model.
- It constructs the payload based on the parameters set by the user and fetching the best fit keyword from the database .

AI-Driven Deep Structured Learning for Cross-Site Scripting Attacks 2023

International Conference on Innovative Data Communication Technologies and Application (ICIDCA)

- Developed a Hybrid Convolutional Neural Network (CNN) and Machine Learning (ML) framework.
- Simulation findings indicate the proposed model's superior effectiveness compared to existing detection techniques.

Fortifying Web Applications: XSS and SQLi Payload Constructor for Enhanced Security 2023

Information and Communication Technology for Competitive Strategies (ICTCS)

- Created an online extension to assist people exercising web security or penetration testing in testing vulnerable web-applications against SQLi and XSS.
- The program is a web extension that connects to MongoDB to collect payloads and provide the best possible result to the user.

Dynamically Calibrated Suspension System 2022

SmartCom 2023

- Developed a dynamically calibrated suspension system which can automatically alter its ride height dependent on road conditions.
- Devised using an ESP-8266 microprocessor module, vibration sensor, and electromagnetic relay control module.

Hydration Check - (Smart water bottle) 2022

SmartCom 2023

- Modeled a smart water bottle that analyses a person's usual fluid consumption and advises the user to drink water
- Created using an ESP-32 microprocessor module and an SMTP notification system.
- It is encoded and has an RTC module for collecting data on fluid intake and refill timings.

VIRTUAL EXPERIENCE & CERTIFICATIONS

J.P. Morgan Software Engineering 2023

Complete A.I. & Machine Learning, Data Science Bootcamp 2023

Goldman Sachs Software Engineering 2023

InCTF Junior (Capture the flag national cybersecurity event) 2022

Master the C/C++ language 2022