Karthik Ramakrishnan

EXPERIENCE

Global Cybersecurity Institute (Rochester Institute of Technology) *— Cybersecurity Visiting Researcher*
May 2021 - Present

Working with Professor Justin Pelletier on developing a deployable Intrusion Detection and Prevention Honeypot and mapping it the to MITRE ATT&CK framework and integration with dashboards like Kibana, Grafana

C3i Center, IIT Kanpur — *Vulnerability Assessment and Penetration Testing(VAPT) Intern*
May 2021 - Present

Working on developing a Reconnaissance Engine framework by building a pipeline which makes use of a combination of open-source tools and scripts to gather information about the target Web Application built using the Python Django Framework, with HTML, CSS and Vanilla JS as the frontend, styled using Bootstrap 5 library and MongoDB as the database to store the results. The application is targeted at penetration testers who can save a massive amount of time by running scans and viewing the results on the go with complete customisation with just a couple of clicks and a user-friendly interface rather than the traditional CLI based approach.

Information Sharing and Analysis Center(ISAC) *— Research Intern (Breach Point)*
March 2021 – May 2021

Contributed to finding vulnerabilities in the Indian Government websites belonging to the finance sector. Discovered vulnerabilities ranging from low to high severity and created a detailed vulnerability assessment report for responsible disclosure.

Crime Free Bharat, National Technical Research & Development Committee, NTRDC, India — *Web Development and Security Intern*
February 2021 – May 2021

Worked on building websites using Django Framework and fixing existing security bugs.

i3indya Cyber Solutions — *Cyber Security Intern*
June 2019 – July 2019

Performed penetration tests for various projects undertaken by the company. Port scan servers using NMAP and close all unnecessary ports to reduce the attack surface. Performed live packet data capture with Wireshark to examine security flaws. Submitted penetration test report to the client.

LookAtHer Org. — *Co-Founder and Web Developer*
June 2018 – December 2018

LookAtHer is a non-profit merchandise startup headquartered in San Francisco, developed a website with Shopify integration and a dashboard to manage and analyse sales.

EDUCATION

Manipal Institute of Technology, Manipal — *BTech. Electronics and Communication Engineering*
July 2018 - Present (Expected 2022)

FIITJEE Junior College, Vijayawada — *Class 12, Physics, Chemistry, Maths (BIEAP)*
June 2016 - May 2018

TRIPS International School, Rajahmundry — *Class 10, CBSE*
June 2015 - May 2016

LINKS

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Email: karthikramakrishnan14@gmail.com
Linkedin: https://www.linkedin.com/in/karthikr1406
Github: https://github.com/L3thal14
Portfolio: https://karthikr.codes

SKILLS

Languages
Python, JavaScript(ES6), SQL, HTML, CSS/Sass, Dart, C++(Arduino)
Libraries and Frameworks
Flask, Django, React.js, Express.js, Node.js, Flutter, LaTeX
Tools and Platforms
Git, Netlify, Heroku, AWS, MongoDB, Firebase
Operating Systems
Windows, Kali Linux, Ubuntu
Network Security Tools
Nessus, Nmap
Proxies/Sniffers Tools
Burp Suite, Wireshark
Penetration
Metasploit Framework

AWARDS AND HONOURS

- Awarded the **Tea with Director Special Award** and was recognised by Manipal Institute of Technology for outstanding extracurricular achievements.
- Secured a place among the top 150 across India in **InCTF Capture the Flag Competition**
- Awarded the **Linux Foundation Training Scholarship 2018**
- **Intel IRIS National Science Fair 2015:** Selected among the top 100 finalists across India
- **Google Science Fair 2015:** Selected among the top 90 regional finalists across the world

PROJECTS

- **Student Management System API:** 🔗 An API and a Web Application built using Flask to get the marks, attendance, and upcoming calendar activities with Captcha bypass from SLCM Website for Manipal Academy of Higher Education(MAHE) students.
- **Zeoco- A smartphone app to manage carbon footprint index:** 🔗 Zeoco is a smartphone application that revolves around the idea of quantifying the implicit effect of consuming a product or utility concerning the associated carbon footprint index.

RESEARCH PUBLICATIONS

- Karthik Ramakrishnan, Gokul P, Preet Batavia, and Shreesh Tripathi. “Zeoco: An Insight into Daily Carbon Footprint Consumption.” ArXiv:2102.06185 [Cs], February 11, 2021.
- Karthik Ramakrishnan, Gokul P, & Rohan Nigam. (2021). Pandora: An Intrusion Detection Honeypot with Real-time Monitoring [Manuscript submitted for publication]. Manipal Institute of Technology, Manipal Academy of Higher Education, India