ARKA GHOSH

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EDUCATION

Digital University Kerala (Formerly IIITM-K)   2022 - 2024
M.Sc. Computer Science with specialization in Cybersecurity   -

Asutosh College, University of Calcutta   2019 - 2022
B.Sc. Computer Science   *8.713 CGPA*

Kalyani Public School   2017 - 2019
Higher Secondary Education CBSE   *91%*

St. Claret School   2007 - 2017
Secondary Education ICSE   *91%*

ACHIEVEMENTS AND CERTIFICATIONS

CTF 1.0   2022
· First Runner-up Organised by KSAAC https://ksaac.duk.ac.in/event_past.php

Entrepreneurship Cell IIT Kharagpur Penetration Testing Winter Camp   2021
· Winter Camp training program on Penetration Testing in association with E-Cell IIT KGP

Cybersecurity and Ethical Hacking Course   2021
· Cyber Security and Ethical Hacking for Beginners and Advanced from GUVI Geek.

Guinness Book Of World Record   2021
· Participated in the World Record Winning event AI-for-India organized by GUVI Geek and AICTE.

IIT Madras Certified Python Course   2021
· Completed an in detailed course on python programming under distance learning by IIT Madras.

Inter School Band Competition   2017
Auxi-Aura
· Second Runner Up in the Auxi Aura 2017 inter-school band competition.

PROJECTS AND INTERNSHIPS

Internship
· Penetration Tester Trainee -Techgyaan Technologies(December 2021), Performed thorough penetration testing and documentation on Mr.Robots Vulnerable machine as my winter training project.
· Technical Content Writer for DataFlair(July 2021-September 2021), where I researched different topics on java and wrote articles on them.

Technical Project:
· Created an OWASP Juice Shop and found 50+ vulnerabilities using Kali Linux, Burp suite, etc.
· Created a user-friendly web application using Flask that uses an ensemble learning method and helps detect if a given email/message is spam or ham.(https://ensemblespamdetector.onrender.com/)
· Created a website using wordpress, elementor.(https://arkag30.github.io/MyProjects/)

Technical Writings:
· I write articles related to cybersecurity online. https://arkag30.medium.com/
· https://www.researchgate.net/profile/Arka-Ghosh-13

PUBLICATIONS AND CONFERENCES

Ensemble Learning And its Application in Spam Detection ICCECE

International Conference on Computer, Electrical & Communication Engineering *2023*

· Abstract—An individual model is not always sufficient enough to classify an email. Each spam mail has features that distinguish it from any other regular mail. A model might not always use that feature for classification and thus produce erroneous results. It is essential to cross-verify the output of one model, with that of another model. This can be done using the ensemble learning technique. Previously, this was done using the same model repeatedly, or different variants of the model. However, in this paper, we have used four completely different models and used them to perform max voting, to optimize the result. The models used are Support Vector Machine(SVM), Multinomial Naive Bayes(MNB), Random Forest(RF), and Decision Tree(DT). After testing all the possible combinations, we were able to conclude that the combination of SVM, MNB, and DT gives the optimal result.

https://ieeexplore.ieee.org/document/10085378

ONGOING PROJECTS

Research Projects

· Attack Modelling and Analysis to find out the weakest path of the network that needs immediate attention.
· Development of an automated security solution for Software Defined Networks (SDN).

SKILLS

Technical Skills

· C, C++, Python, Java, HTML, CSS, Flask, Php, JavaScript, WordPress, GIT, Kali Linux, MySQL, Vulnerability Assessment and Penetration Testing, Ethical Hacking, Machine Learning

Other Skills and Hobbies

· Guitar, Ukulele, Harmonica, Painting, Abacus(Level 8)