

# ARKA GHOSH

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## EDUCATION

<b>Digital University Kerala (Formerly IIITM-K)</b> <i>M.Sc. Computer Science with specialization in Cybersecurity</i>	2022 - 2024 -
<b>Asutosh College, University of Calcutta</b> <i>B.Sc. Computer Science</i>	2019 - 2022 8.713 CGPA
<b>Kalyani Public School</b> <i>Higher Secondary Education CBSE</i>	2017 - 2019 91%
<b>St. Claret School</b> <i>Secondary Education ICSE</i>	2007 - 2017 91%

## SUBJECTS LEARNED

Network Security, Data Structures and Algorithms, Cryptography, Cyber Security and Digital Forensics, Cyber Analytics, Security Auditing, Operating System, Computational Intelligence, Discrete Mathematics, Digital Image Processing, Database Management System.

## ACHIEVEMENTS AND CERTIFICATIONS

<b>Smart India Hackathon Internals</b>	2023
· First Runner-up in SIH 2023 internals organized in DUK.	
<b>CTF 1.0</b>	2022
· First Runner-up Organised by KSAAC <a href="https://ksaac.duk.ac.in/event_past.php">https://ksaac.duk.ac.in/event_past.php</a>	
<b>Entrepreneurship Cell IIT Kharagpur Penetration Testing Winter Camp</b>	2021
· Winter Camp training program on Penetration Testing in association with E-Cell IIT KGP	
<b>Cybersecurity and Ethical Hacking Course</b>	2021
· Cyber Security and Ethical Hacking for Beginners and Advanced from GUVI Geek.	
<b>Guinness Book Of World Record</b>	2021
· Participated in the World Record Winning event AI-for-India organized by GUVI Geek and AICTE.	
<b>IIT Madras Certified Python Course</b>	2021
· Completed an in detailed course on python programming under distance learning by IIT Madras.	
<b>Inter School Band Competition</b> <i>Auxi-Aura</i>	2017
· Second Runner Up in the Auxi Aura 2017 inter-school band competition.	

## PROJECTS AND INTERNSHIPS

### Internship

- **Research Intern -George Mason University(July 2023-August 2023)**, Novel research on topic related to Network Defence under the guidance of Dr. Massimiliano Albanese
- **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

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### Ensemble Learning And its Application in Spam Detection

ICCECE

*International Conference on Computer, Electrical & Communication Engineering*

2023

- Ensemble learning is employed to enhance email classification by considering distinct features of spam mails. Four diverse models, SVM, MNB, RF, and DT, are used for max voting. After evaluating various combinations, the optimal result is achieved by combining SVM, MNB, and DT.

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

## ONGOING PROJECTS

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### Research Projects

- A novel technique to detect attacks with the help of attack models
- Development of a smart security solution using Software Defined Networks (SDN).

## SKILLS

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### 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)
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