

ARKA GHOSH

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EDUCATION

Digital University Kerala (Formerly IIITM-K)	2022 - 2024
<i>M.Sc. Computer Science with specialization in Cybersecurity</i>	<i>8.27 (1st in Class)</i>
Asutosh College, University of Calcutta	2019 - 2022
<i>B.Sc. Computer Science</i>	<i>8.71 CGPA (5th in class)</i>
Kalyani Public School	2017 - 2019
<i>Higher Secondary Education CBSE</i>	<i>91%</i>
St. Claret School	2007 - 2017
<i>Secondary Education ICSE</i>	<i>91%</i>

EXPERIENCES

Internships:

- **R&D Intern -Centre for Distributed Computing, Jadavpur University(February 2024-July 2024)**, Working on research problems based on SDN and Moving Target Defense
- **R&D Intern -Centre for Digital Transformation and Innovation(October 2023-February 2024)**, Working on research problems based on Computer Vision to develop a new solution.
- **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>

Managerial Roles:

- **Hack-X Cybersecurity Society Founding Member.** Roles include organizing CTF, Seminars, and various other activities.
- **Placement Cell DUK core team Member.** Roles include management of various placement activities.

PUBLICATIONS AND CONFERENCES

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|---|-------------|
| Ensemble Learning And its Application in Spam Detection | ICCECE |
| <i>International Conference on Computer, Electrical & Communication Engineering</i> | <i>2023</i> |
- 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

Research Projects

- Building a Language Parser for a Composite Specific Language
- A novel technique to detect attacks with the help of attack models
- Development of a smart security solution using Software Defined Networks (SDN).
- Solution to implement Moving Target Defense

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, GNS3(Network Simulation)

Other Skills and Hobbies

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

ACHIEVEMENTS AND CERTIFICATIONS

CCNAv7.0

2024

- M1 - Introduction to Networks
- M2 - Switching, Routing, and Wireless Essentials

Smart India Hackathon Internals

2023

- First Runner-up in SIH 2023 internals organized in DUK.

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.
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