

DURJOY MAJUMDAR

STUDENT | ASPIRING SOC ANALYST | SECURITY RESEARCHER

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Objective

A final-year B.Tech student specializing in Cybersecurity and Blockchain Technology, dedicated to tackling emerging threats and strengthening system defenses. Experienced in SOC operations, threat detection, and security research, with published work in AI security, LLM vulnerabilities, and automated threat defense. Currently focusing on post-quantum cryptography (PQC) to address the growing urgency of securing today's data against future quantum threats. **Looking forward for any opportunity to expand my knowledge and contribute to cutting-edge advancements in cybersecurity.**

Education

- **KL University (KLEF)** ; Vaddeswaram, Andhra Pradesh, India **CGPA - 9.26 out of 10.00 | 2021-25**
 - B.Tech CSE (Honours) ; Specialization in cybersecurity and blockchain technology.
- **Govt. Shamsur Rahman College**; Shariatpur, Dhaka, Bangladesh **GPA - 5.00 out of 5.00 | 2019-21**
 - Higher Secondary School Certificate; Science major.
- **Idilpur Pilot High School**; Shariatpur, Dhaka, Bangladesh **GPA - 5.00 out of 5.00 | 2017-19**
 - Secondary School Certificate; Science major.

Experience

Research Associate (Intern), SRG Laboratory, KL University | [Andhra Pradesh, IN] Nov' 24 - Present

- Working on a project to mitigate voice based authentication risks e.g. record and reply attack or deepfake.
- Contributing to secure the data storage (AWS) of SRG laboratory. Additionally performed some web development tasks as required (wissap24.kluniversity.in)

Research Advisor, White Hat Hackers Club, KL University | [Andhra Pradesh, IN] MAY' 24 - Present

- Initiated 6 research projects with 15+ team members, led 3 of them resulting in 2 IEEE-published papers.
- Partnered with 5+ external entities to work collaboratively in research.
- Facilitated 24+ biweekly discussions averaging 100+ participants, with 60% attendance retention.

Technical Chair, White Hat Hackers Club, KL University | [Andhra Pradesh, IN] MAY' 23 - MAY' 24

- Coordinated 15+ events with 1500+ participants, achieving 85% satisfaction rate.
- Crafted 20+ CTF challenges across 3 difficulty levels, completed by 300+ participants.
- Provided guidelines to students to grow in Cybersecurity. Delivered 15+ technical sessions.

Student Peer Mentor & Teaching Assistant, KL University | [Andhra Pradesh, IN] APR' 22 - JUN' 24

- Mentored 100+ undergraduates across 7 core security courses, achieving 80% positive feedback.
- Conducted 20+ study sessions, provided coursework guidance and assisted in lab.

Projects

- **AI4ECN-Novel AI enablers and systems for Edge-Cloud-Network Continuum | Submitted** - Representing KL University as a student researcher in a €7.5M Horizon Europe project, collaborating with 17 international partners including UCL and Telefonica, with additional ₹1.5Cr DST India funding upon selection by EU.
- **Logalyzer** - In house SIEM solution for real-time log analysis, reducing incident response time by 30% through automatic threat remediation. Enables log collection from geographically isolated endpoints.
- **WeCrypt** - Researched possible ways recover and decrypt WeChat messages in an forensic environment, developed an tool to discover the database using degradation vulnerability of WeChat achieving 95% success rate across 50+ databases and various scenarios.
- **TheAttack** - Simulated network attack and defend scenario using GNS3, Cisco routers, PfSense, Wazuh and other open source elements.
- **Web Development** - wissap.kluniversity.in, srivinayakapackers.in.

Research Publications

- **Beyond Copy-Pasting - Contextualizing LLMs for Secure Code Generation.** | SpringerNature [↗](#)
 - This study evaluates security vulnerabilities in code generated by Large Language Models (LLMs) and co-pilots, emphasizing the need for strategic contextualization in Secure Coding Practices (SCPs). Through qualitative analysis, it assesses risks and proposes actionable strategies to help developers fine-tune LLMs for secure code generation. By integrating proactive security measures, this research aligns accelerated development with robust security practices.
- **Beyond Text: Nefarious Actors Harnessing LLMs for Strategic Advantage.** | IEEE Xplore [↗](#)
 - This study explores how malicious actors exploit Large Language Models (LLMs) for cyber threats beyond conventional uses. Through literature review, case studies, and real-world analysis, it examines LLM-driven deception, social engineering, and cybercrimes like phishing, password cracking, and malware propagation, highlighting emerging security challenges.
- **Shadow ARP-ing for ARP Poisoning Detection.** | IEEE Xplore [↗](#)
 - This study addresses ARP spoofing, a longstanding network security threat enabling attacks like MITM and DDoS. It proposes an automated OS-based monitoring technique to detect ARP poisoning in real time, reducing reliance on manual ARP table checks and minimizing detection delays.
- **Mitigating Software Dependency Hallucinations in LLMs: An emerging Supply Chain attack vector.** | IEEE : Com.
 - This research work focuses on possible supply chain attack scenarios because of hallucinated software dependency suggestion by LLMs and suggest an RAG based solution to mitigate such scenario.
- **An analysis and improvment research on Quantum Safe Cryptography** | Ongoing
 - Following Google's unveiling of Willow on December 9, 2024, the quantum era is arriving faster than expected, raising concerns about data security. My team and I are working to find solutions to enable quantum-safe encryption on existing infrastructure, ensuring today's data remains secure for the future.

Skills

- **Technical Skills:** Log analysis, Malware analysis, Threat hunting, Incident response, SIEM implementation.
- **Tooling:** Splunk, Wireshark, Nmap, Metasploit, GNS3, Autopsy, Volatility, Snort, Suricata, Sysinternal Toolkit.
- **Software Development:** HTML, CSS, Js, C, Bash, Powershell, React, NodeJS, Django.
- **Additional:** Experienced in academic research writing and methodologies, with proven collaborative success.

Certifications

- | | |
|---|-----------|
| • Github Foundations | JAN' 2025 |
| • OCI GenAI Professional. | JUL' 2024 |
| • Oracle certified foundations associate. | JUN' 2024 |
| • Microsoft AI-900 (Azure AI Fundamentals). | JUN' 2024 |
| • PCAP - Programming in pyhton | MAY' 2024 |
| • Fortinet Certified Cybersecurity Associate. | MAY' 2024 |
| • Google Cybersecurity Professional. | FEB' 2024 |
| • Juniper Networks Certified Associate, Junos (JNCIA - Junos). | MAY' 2023 |
| • (ISC) ² Certified in Cybersecurity SM - CC. | DEC' 2022 |
| • Google IT Support Professional. | NOV' 2022 |

Professional Development

- **TryHackMe | Online Cybersecurity Training Platform | 2022 - Present**
 - Ranked in the top 0.5% globally (around 5800 over 4 million practitioner) by consistently solving problems and developing skills with a streak of 400+ days.
 - Completed 197 rooms and 4 learning paths, accumulating 1000+ hours of practical lab experience.
- **LetsDefend | Online Cybersecurity Training Platform | 2023 - Present**
 - Achieved a top 3 national ranking with over 6.5k points and 7047 SLA, maintaining an 85% success rate in security alert resolution.
 - Completed 5 learning paths, earned 70+ badges, and demonstrated proficiency with more than 500 hours of lab exercises, including simulated SOC scenarios.

Achievement & Honors

- Runner Up of Smart India Hackathon 2023 - the worlds biggest open innovation model and the largest hackathon of India.
- Runner up of KAVACH 2023 - the biggest cybersecurity hackathon of India.
- Recieved the conference grant to attend Seasides cybersecurity conference 2025.
- Top 1% in TryHackMe global leaderboard, top 3 in LetsDefend national leaderboard and active CTF player.
- SII (Study In India) Scholar. An scholarship awarded to 250 students worldwide by the Govt. of India mainly based on the PRAGATII exam conducted by the National Testing Agency of India.
- Research Advisor, White Hat Hackers Club, KL University.
- Head of the Quality Assessment council, Student Activity Center (SAC), KL University.
- Recognized as LinkedIn's Cybersecurity Community Top Voice (Golden Badge) for contributing to community collaborative articles.
- Head coordinator, Winter School for Speech and Audio Processing (WiSSAP-2024).
- Nationalist of the Extraordinary Talent Hunt competiton 2019 (Science section). Awarded by the education minister of the Govt. of Bangladesh.
- Received "Best meritorious student of the year of the state in science" award consecutively 3 times.
- Recieved "Best boy scout of the state" award on 2018 and "Best rover scout of the state" award on 2020.
- Consecutive three time winner of state level debate championship.
- Co-founder and Vice president, GSRC Science club (an club founded by a group of student to foster the hands on practice and learning of science and technology for collage students).

Volunteering

- **Technical Associate** | SRG Laboratory, KL University
- **LAB Associate** | Juniper Laboratory, KL University
- **Team lead** | Bangladesh Boy Scouts & Rover | 2016 to 2020
- **Member** | Bangladesh Red Crescent Society | 2018 to 2020

Community Project

- **CyberMasteryGuide** : An open source comprehensive guide to master cybersecurity. This is an pathway for the beginners in the field. I found it difficult to start my journey in the endless ocean of cyber and that inspired me to create the curated pathway. The project is publishes under the MIT license on github.
- **TheEternalToolbox** : I am currently working on a curated list of available tools, threat intel, databases and other necessary elements needed for an cybersecurity expert in order to streamline the learning experience and eliminate the time to lookup for an tool instead of learning it.

Declaration

I hereby solemnly affirm that the above furnished details are true to the best of my knowledge and belief.