Naima Ahmed Nup

An Aspiring Engineer, graduated from BRAC University undergraduate study program in the department of Computer Science and Engineering (CSE)·

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Summary

- Dynamic Computer Science and Engineering graduate and a diligent individual with a strong passion for exploring new opportunities that align with my technical skills, ethical beliefs, complemented by a profound desire to inspire and educate the next generation. I am a skilled communicator and mentor, adept at imparting complex concepts in a clear and engaging manner. Equipped with extensive technical knowledge and hands-on experience in networking, designing, developing, and maintaining software systems during my academic pursuits, I am dedicated to achieving success in any task that is given to me. Throughout my career, I have consistently demonstrated a strong work ethic and a willingness to go above and beyond expectations. Seeking an opportunity to contribute to the industry as a talented developer while making a positive impact through teaching and empowering the next generation of engineers.

EDUCATION

- **Bachelor in Computer Science and Engineering** **(2019-2023)**
  BRAC University, Dhaka
  CGPA: 3.79 (Out of 4.00)

- **Higher Secondary School Certificate (HSC)** **(2017)**
  Ideal School College, Motijheel, Dhaka
  Group: Science
  GPA: 4.67 (Out of 5.00)

- **Secondary School Certificate (SSC)** **(2015)**
  Ideal School College, Motijheel, Dhaka
  Group: Science
  GPA: 5.00 (Out of 5.00)

PROFESSIONAL EXPERIENCE

- **Teaching Experience** **2017 - PRESENT**
  Have teaching experience in mathematics for Higher Secondary levels which enhances my communication ability when working with students and colleagues. I have general teacher skills and excellent feedback as a new teacher.

SKILLS

- **Programming Languages**
  Python, Java, C++, JavaScript, Assembly

- **Libraries/Frameworks**
  Laravel, Pandas, Numpy, sklearn, matplotlib, opencv
- **Web Development**
  HTML, CSS, JavaScript, React, Node.js, PHP
- **Database Management**
  MySQL, MongoDB
- **Software Development**
  Agile Methodology, Software Testing (Unit Testing), and Debugging
- **Adobe Softwares**
  Photoshop, Premiere Pro, Illustrator, Adobe XD
- **Microsoft Office and Google Workplace**
  Microsoft Excel, google sheet, Microsoft Word, google docs, Microsoft PowerPoint, google slides, Microsoft One Note
- **Other Skills**
  Latex, Data Science and Analysis, Machine Learning AI, Linux Windows operating system, Cisco Packet Tracer

LANGUAGES

- **English**
  Proficiency: Full Professional. (MOI Certified)
- **Bangla**
  Proficiency: Full Professional.
- **Hindi**
  Proficiency: Limited Working Proficiency.

RESEARCHES

- **Exploring the Intersection of Machine Learning and Explainable Artificial Intelligence: An Analysis and Validation of ML Models Through XAI.** Github Repository Link
  (Analysis and Validation of Machine Learning Models Through XAI for Intrusion Detection)
  This research highlights the use of machine learning (ML) models for intrusion detection in Windows 10 Operating systems using the ToN-IoT dataset. We investigate the performance of different ML models including tree-based models such as Decision Tree (DT), Random Forest (RF), Logistic Regression (LR), and K-Nearest Neighbors (KNN) in detecting these attacks. Furthermore, we use Explainable Artificial Intelligence (XAI) techniques to understand how the attacks influence the processes in the Windows 10 systems and how they can be identified and prevented. This study highlights the importance of using XAI techniques to make ML models more interpretable and trustworthy in high-stakes applications such as intrusion detection.
  - Published in International Conference on Big Data, IOT and Machine Learning 2023 (Paper ID: 329)

PROJECTS

- **Task Management System** Github Repository Link
  (Web Development Project)
  This system is built with PHP, HTML and CSS and constructed following the MVC pattern.

- **University Scholarship Management System** Github Repository Link
  (Web Development Project)
  This system is built with PHP, HTML and CSS.
- **Fire Detection System** Github Repository Link
  (Arduino Project)
  The Fire Detection Alarm system is built with Arduino.
- **Valorant–construction of devices in a network** Github Repository Link
  (Networking Project)
  For this project, I structured my topology with six cities. Then, I configured all the IP addresses in my WAN and LAN network. After that, I configured all the routers and connected the network by routing statically and dynamically. Lastly, I confirmed my network's connectivity by troubleshooting with ping and traceroute.
- **Internet Service Provider Company** Github Repository Link
  (Networking Project)
  Variable Length Subnet masking, IP Configuration, Router Configuration, Static Routing, Dynamic Routing, Troubleshooting
- **Line Following Robot** Github Repository Link
  (IOT Project)
  Line Following Robot is a PID Implemented Robot created on Webot and programmed in Python.

ACHIEVEMENTS

- **Achieved VC's List Honorary in BS.c degree from BRAC University During Semesters**
  i. Fall 2020
  ii. Spring 2021
- **Achieved Dean's List Honorary in BS.c degree from BRAC University During Semesters**
  i. Summer 2020
  ii. Summer 2021
  iii. Fall 2021
- **Participated in the 'COVID-19 COMBATANTS UNIFICATION COMPETITION' organized by IEEE Computer Society- Brac University Student Branch Chapter.**
- **Participated in Google Code Jam 2021 and 2022**
- **Solved more than 200 problems in various online judges**
  Codeforces - 90+ problems

SIGNIFICANT ROLES

- **GM of Creative Team** **January 2019 – July 2019 (6 Months)**
  BRAC University Computer Club (BUCC)
- **GM of Research and Project Management Team** **January 2019 – April 2019 (3 Months)**
  Robotics Club of BRAC University - ROBU

REFERENCES

Dr. Muhammad Iqbal Hossain
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