

Sudipa Saha

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EDUCATION

Bangladesh University of Engineering and Technology

February 2017 - May 2022

Bachelor of Science in Computer Science and Engineering

CGPA: 3.56/4.00

Major CGPA: 3.73/4.00

Notable Coursework: Computer Security, Human-Computer Interaction, Computer Networks, Machine Learning, Artificial Intelligence, Software Development

RESEARCH EXPERIENCE

Analyzing Impacts on Physiological Aspects of Rickshaw Pullers due to Heat Exposure 2020 - 2023

- Supervisor: [A. B. M. Alim Al Islam](#)
- Collaborators: [Dr. Tauhidur Rahman](#)
- Collected real environmental and health data of the rickshaw pullers when they drive it.
- Performed exploratory and statistical analyses to find insights about possible health risks.

Interaction Based Credibility Analysis of Facebook News

2021 - 2022

- Supervisor: [Dr. Sadia Sharmin](#)
- Developed a method of detecting fake news using interaction metrics on Facebook.
- Used machine learning methodologies to classify the authenticity of public Facebook posts.

Understanding Users' Perceptions of Usability and Security of MFS Applications

2024 - present

- Supervisor: [A. B. M. Alim Al Islam](#)
- Conducted online surveys to learn about user perceptions of MFS applications' usability and security.
- Performed qualitative and quantitative analysis to find correlations between responses.

ACCEPTED PAPERS & POSTERS

- Sadia Sharmin, **Sudipa Saha**, Tasin Hoque, Khandaker Abrar Nadib - **Interaction Based Credibility Analysis of News on Facebook Using Machine Learning Methodologies**. *16th International Conference on Signal Image Technology & Internet based Systems(2022)*
- **Analyzing Impacts on Physiological Aspects of Rickshaw Pullers due to Heat Exposure**. *9th International Conference on Networking, Systems and Security(2022)*
- **It's Too Hot Under the Sun": Unveiling the Impact of Prolonged Heat Exposure on Rickshaw Pullers' Brainwaves**. *11th International Conference on Networking, Systems and Security(2024)*

EXPERIENCE

Senior Software Engineer | Enosis Solutions, Bangladesh

May 2024 - Present

- Working on developing a centralized solution for data conversion within an existing application.
- **TechStack** : .Net Core, SQL Server, PostgreSQL, MySQL, Virtual Machine

Software Engineer | Enosis Solutions, Bangladesh

May 2022 - April 2024

- Contributed to developing a web application that displays customer data and generates reports through an interactive dashboard.
- **TechStack** : Angular, .Net Core, SQL Server, Redis

LAB PROJECTS

- **Heuristic Analysis of bKash** | [Link](#)

Conducted a heuristic analysis of the mobile financial app bKash to identify existing usability issues and proposed solutions to resolve them.

- **Ping of Death and Ping Flood attack** | [Link](#)
Spoofed ICMP echo requests with an arbitrary IP address to overwhelm the victim and make it unresponsive in a Ping Flood attack and oversized ping packets were sent to the victim for a Ping of Death attack.
- **Cross Site Scripting Attack** | [Link](#)
Techstack: JavaScript, Elgg in Ubuntu VM Image
Designed a self-propagating worm with a malicious JavaScript program that forges HTTP requests directly from the victim's browser to make the attacker a friend, modify the victim's profile, posting on behalf of the victim.
- **Distracted Driver Action Classification** | [Link](#)
Techstack: CNN, ResNet, VGG16, Xception, MobileNet
Constructed a DL model using CNN and transfer learning methods for classifying distracted driver activity.
- **Learn Math** | [Link](#)
Techstack: React.js, Node.js, PostgreSQL
Developed a math learning platform where students can practice, watch tutorials and give quizzes. Instructors create Rubric-based written questions and tutorials and moderators check the quality of content.
- **Dino Run** | [Demo video](#) | [Link](#)
Instruments: ATMEGA-32, Led Matrix, Joystick, Sound Sensor
This microcontroller project replicates the features of Google Chrome's popular Dinosaur game.
- **Trip Advisor** | [Link](#)
Techstack: PHP, HTML, CSS, PostgreSQL
Developed a platform where users can search for hotels, book hotels, see a list of nearby places to see and provide hotel ratings.

SKILLS

Languages	Java, C, C++, C#, Python, Matlab, Shell, JavaScript
Database	Oracle, MySQL, PostgreSQL, SQL Server
Version Control	Git(GitHub, Bitbucket), GitLab, Azure, Jira
Frameworks	React, Node, Angular, Ionic
Web Technology	HTML, CSS, Rest API

EXTRA-CURRICULAR ACTIVITIES

- **Bangladesh Mathematical Olympiad** 2019 - 2021
- Academic Team Member
- **BUET System Analysis, Design and Development community(BSADD)** 2020 - 2022
- Volunteer
- **Bangladeshi Women in Computer Science and Engineering(BWCSE)** 2020 - 2021
- Coordinator

ACHIEVEMENTS

- **5th** in Ada Lovelace Datathon, 2021
- **Finalist**, Pioneros 2.0 (2018)
- **Regional Champion**, Bangladesh Mathematical Olympiad (2014-2016)

REFERENCES

Dr. Sadia Sharmin

Associate Professor

Department of Computer Science and Engineering

Bangladesh University of Engineering and Technology, Dhaka

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