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Shakil Mosharrof

Portfolio
Stackoverflow
GitHub
TryHackMe
LinkedIn
AskUbuntu

EDUCATION

Bachelor of Computer Science and Engineering
Military Institute of Science and Technology

2020 - 2024

Higher Secondary School Certificate
Barishal Cadet College

2017 - 2019

RESEARCH & PUBLICATIONS

- DeepTriNet: A Tri-Level Attention Based DeepLabv3+ Architecture for Semantic Segmentation of Satellite Images. ArXiv. /abs/2310.06848 [Accepted & published, got the best paper award]
- Performance Analysis of Various EfficientNet Based U-Net++ Architecture for Automatic Building Extraction from High Resolution Satellite Images. ArXiv. /abs/2310.06847
- CycleGAN-Based Data Augmentation with CNN and Vision Transformers (ViT) Models for Improved Maize Leaf Disease Classification. doi: 10.1109/ITMS59786.2023.10317666.
- Biomolecular Analysis of Soil Samples and Rock Imagery for Tracing Evidence of Life Using a Mobile Robot [Accepted at ICRAIE - 2023]
- Enhancing Mango Leaf Disease Classification: ViT, BiT, and CNN-Based Models Evaluated on CycleGAN-Augmented Data [Accepted at ICCIT-2023]
- SecureLandChain: A Blockchain-Based Land Registry System with Biometric Authentication and Certificate Verification System [Submitted for a Q1]
- Automatic Literature Review Generation : An Improved LLM-RAG Based Solution Embedded With Regex and T5. [Thesis]

EXPERIENCE

Industrial Trainee
Brainstation 23

Jan 2023 - Feb 2023
Mirpur DOHS

- Got hands on training on C# and ASP.NET MVC through Brainstation 23's LMS. During the course, I completed one desktop application project and two web-based projects using ASP.NET .

Capture The Flag (CTF)

TryHackMe
Mentor (Later Vice-President), MIST Cyber Security Club

Achievements:

- Certified for "Junior Penetration Tester" [\[link\]](#)
- Certified for "Attacking Active Windows Directory". [\[link\]](#).
- Became top 4 % on TryHackMe globally . [\[link\]](#)
- Mentor at MIST Cyber Security Club
- CTF Team Lead for Leetcon CTF 2023, became 24th among 300+ teams nationally.
- Achieved 79th place globally among 572 contestants from 30 different countries in Kaspersky codebreakers CTF.
- Became qualified for BlackHatMEA 2023 CTF Finals (Global rank 97 at finals).[\[link\]](#)

Stackoverflow
Provided 4 solutions

- Solution links : [1](#) [2](#) [3](#) [4](#)

Competitive programming

2020 - 2022

- Solved over 250+ problems on GeeksForGeeks, Codeforces and Leetcode

PROJECTS

Software & Autonomous System Developer

Mars Society's University Rover Challenge (URC)
Anatolian Rover Challenge (ARC)

2021 - ongoing

USA

UKET, Turkey

Achievements:

- Developed an autonomous rover system using software & communication team for URC-2021 competition which became **champion globally beating 88 teams** in SAR and finally 36 teams in the final [Link](#).
- Developed an autonomous rover system with software & communication team for ARC-2022 competition which **became third among 14 final contestant countries** .[Link](#)
- Software & Autonomous Team Lead For URC-2023, became 2nd in Asia in SAR stage.
- Software & Autonomous Team Lead For ARC-2023, became 2nd in Asia & 5th globally.

Pretrained CNN based Dog Classifier

[Code](#)

- Project completed during AWS AI/ML Scholarship Programme. Has implementation of ResNET, VGG16 model.

Bus Counter Management System Using JavaFX

[Code](#)

- This Project uses the SWING framework and JavaFx implementation in it.

MILITARY COMMUNICATION EQUIPMENT REPAIR AND ISSUING OF SPARE PARTS MANAGEMENT SYSTEM

[Code](#)

- This web development project has usage of HTML, CSS, JS, PHP and OracleDB as database.

Simple weight machine using HX711 and Arduino

[Code](#)

- Developed a weight machine using HX711 sensor and Arduino which could measure up to 95% accuracy

SoccerBot

- This project was developed for a soccer bot competition and uses Arduino implementation.

DekhboKinbo

[Code](#)

- A DVD / Movie /Tv show purchase website built using ASP.NET Core MVC And Entity framework

Alumni Information Management System

[Code](#)

- Alumni Information Management Software built using C# & Microsoft Access Database

Blockchain-based Land Record management system with biometric authentication

[Code for contract deployment](#)

[Code for frontend and database](#)

- A blockchain-based decentralized land record administration system with a biometric authentication system.

SKILLS

Language	Python,C,C++, Git,LaTeX,C#,Bash,PHP,Javascript
Frontend	HTML5,CSS,JS,Bootstrap
Backend	Flask,Django
Database	MySQL,Firebase
App Development	Flutter,Dart
Soft Skills	English (business), Bengali (business), Public Speaking, Extempore Speech,Good time management & communication
Pentesting Tools and OS	Burp Suite, NMap, Metasploit, SQLMap, Wireshark, Nessus, John The Ripper, Hashcat, Dirb, Volatility, Parrot OS
Other	Linux,PyTorch,Tensorflow,Git,Docker ,Microsoft Excel,Microsoft Word, Microsoft Powerpoint