Fahmid Al Rifat

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GitHub | Hacker Rank | Behance

EDUCATION

Bangladesh University of Engineering and Technology
March, 2017 - Present
Bachelor of Science in Computer Science and Engineering
Department of Computer Science and Engineering
CGPA: 3.60/4.00

Residential Model Collage
February, 2015 - February, 2017
Higher Secondary Certificate (HSC)
Graduated with High Honor in Science
CGPA: 5.00/5.00

Rangpur Zilla School
February, 2013 - February, 2015
Secondary School Certificate (SSC)
Graduated with High Honor in Science
CGPA: 5.00/5.00

PROFESSIONAL PROJECTS

Ravenclaws Website | - *Word press, CSS, Photo-shop, PHP*
November, 2020
Website

-A full-stack web app which allow user to buy desired item , features of subscription based on review , sale and admin recommendation are imlemented here
- This project is for Ravenclaws Company (A well known multi purpose online shop)

ACADEMIC PROJECTS

Hall management system | *Django , MongoDB*
January, 2022
GitHub

A web application for managing dormitory built under Dr. Md. Mostofa Akbar, Computer Science and Engineering, BUET. This application helps the student , provost and service man to efficiently complete dormitory related processes.

Defending Black Whole Attack | *Network Simulator 3(NS3) , C , Python , GNU-Plot*
January, 2022
GitHub

The black hole attack is an active insider attack where the attacker consumes the intercepted packets without any forwarding . Here AODV protocol is improved to minimize the damage of black whole and simulated in Network Simulator 3 and this project supervised By Dr. Md. Shohrab Hossain

Smart Cart | *C, Arduino , ATMega 32, Atmel Studio , Proteus 832*
November, 2021
Youtube

Prototypes a working model of smart cart: an autonomous cart that follows a point-of-interest by automatic collision detection and handling .Our team Designed a fully functional software simulation and later built a small hardware prototype using ATMega32, Arduino, and other relevant components.

Travel Agency BD | *Django , Oracle SQL , HTML , CSS*
November, 2021
Youtube

Travel Agency BD is a web application built under Dr. Muhammad Abdullah Adnan, Computer Science and Engineering, BUET that provides travel and tourism-related services to the general public on behalf of accommodation or travel suppliers to offer different kinds of travelling packages for each destination

Mili Militia Pro | *Java , JavaFx , Scoket programing*   November, 2020
                                                                              <u>GitHub</u>

A multiplayer gaming application with server client system built under Md. Tarikul Islam Papon , Computer
Science and Engineering, BUET. Online player can create and join room and fight with weapon to increase
score

NFS Kill Trone | *C++ , iGraphics Custom Library*   November, 2018
                                                                              <u>Youtube</u>

A graphical adventure game with game own game engine built under Md. Shohrab Hossain , Computer
Science and Engineering, BUET

MINI PROJECTS

File Transfer TCP | *Java , Scoket programing*   January, 2022
                                                                              <u>GitHub</u>

A special purpose file server where student/client can upload , download or request for files simultaneously
with help of multi threading . TCP chunk by chunk sending concept, timeout and Acknowledgement concept
applied here with proper error handling .

Word-Count-JavaFX | *Java, JavaFX*   January, 2019
                                                                              <u>GitHub</u>

A GUI based JavaFX program where user can select text file and the program will count the duplicate words .

Text-Sliding-iGraphics | *C++ , iGraphics Custom Library*   November, 2018
                                                                              <u>GitHub</u>

Prototypes a graphical working model that slides given input Text in desire direction which is designed with
iGraphics Custom Library and other relevant components.

Analog-Clock-iGraphics | *C++ , iGraphics Custom Library*   November, 2018
                                                                              <u>GitHub</u>

Prototypes a graphical working model that simulate Analog-Clock with iGraphics Custom Library and other
relevant components.

ACADEMIC WORKS

Adding Memory Managing , Scheduling feature in Xv6 | *MIT Xv6 code-base , C++,*   January, 2022
                                                                              <u>GitHub</u>

Xv6 is MIT os codebase . Like many other components of Xv6 OS, the memory management system isn't on
par with modern-day standards. My mission was to enhance and improve the memory management system of
Xv6

Information-System-Design | *Draw.io , Power-Point*   January, 2022
                                                                              <u>GitHub</u>

Requirement Analysis , BPMN, MOCK UI, Class Diagram, ERD Diagram, Collaboration Diagram, Sequence
Diagram

Artificial Intelligence | *C++ , Java*   January, 2022
                                                                              <u>GitHub</u>

Implenting Ai in Mancala Game , Implenting Hidden Marcov Model , N Puzzle Game with Adeversial Search ,
Constant Satisfactory Problem with Cocho Solver.

Compiler | *Flex , Bison , EMO 8086*   September, 2021
                                                                              <u>GitHub</u>

Our basic version compiler have Symbol Table, Lexical Analysis part, Syntax and Semantic Analysis part and
Intermediate Code Generation part which as a whole translates computer code written in C into Assembly .

Software Engineering | *C++ , Java, Junit*   September, 2021

OOP, Creational Design Pattern, Structural Design PatternsFile , Behavioral Design PatternsFile and Test Case generation

Computer Architecture | *Proteus 832, Logisim*   September, 2021

Processor Design implementing MIPS Instruction SetFile and Pipelined Datapath

Data Structure And Algorithm | *C,C++*   January, 2021

Greedy Algorithms, APSP, Max Flow, Binomial Heap, Red Black Tree , Dynamic programming , Divide and Con quire , Graph Searching Algorithm etc

Degital Logic Design | *Hardware, Wires, IC*   April, 2019

Implementing circuits with basic gates, Truth tables and simplification using Boolean Algebra, K-maps, Arithmetic circuit design, Circuit design using IC 7483, Encoder and Decoder Circuits, Multiplexers, Flip-Flops, Counters .

Numerical Methods | *Advanced Python, graphical tools for python, numpy, pandas*   April, 2019

Constrained and Unconstrained Optimization, Curve fitting, Approximation and Round-off error, Truncation error and Taylor Series, Roots of equation, Linear System, Numerical Differentiation and Integration, Ordinary and partial differential equation.

ACHIEVEMENTS

BUET Architecture Admission Test (2017)
Position: 8th all Bangladeshi students

College Examination (2016)
Position: 2th among all sections

Secondary School Certificate (2017)
Position: 7th among Region

Awarded IST position in victory Day and Independence day Art competition organize by BD National Musium
Position: Top 1

Awarded several times in art and literature competition organize by Shilpachargo joynal avedin sangrohosala, mymensingh
Position: Top 1

SCHOLARSHIPS

TECHNICAL SCHOLARSHIP, BANGLADESH, 2017-22
Complimentary scholarship for regular engineering students.

GOVERNMENT SCHOLARSHIP, BANGLADESH, 2015-17
Awarded For Outstanding Performance in Secondary School Certificate Examination.

EXTRA-CURRICULAR ACTIVITIES

Attended green brick project organize by UNDP Bangladesh

Attended several times in math Olympiad organize by Prothom Alu

ESPL Mobile Legend tournament runners-up (2020-21)

CERTIFICATES

Problem Solving

Codeforces, Hackerrank, Choco-solver (CSP)

Digital Marketing by 10 min school

Digital Animation by 10 min school

Advance photography by Ghuri Learning

TECHNICAL SKILLS

Languages: Java, C, C++, Python, Matlab, JavaFX , Gnu-Plot, Bash , Assembly

Database: Oracle, MySQL, SQLite, MongoDB

OS: Windows, Linux(Kali,Ubuntu)

Version Control: Git(GitHub)

Frameworks: JavaFX, Django

Web Technology: HTML, CSS, PHP, Bootstrap, Word-press

Graphics Technology: Auto-Cad, Photoshop, Illustrator, PowerPoint, Premier Pro, Kine-Master

Compiler IDE: Flex , Bison , EMO 8086

Micro-Controller: Arduino , ATMega 32, Atmel Studio , Proteus 832

Technical Writing: LaTeX, Beamer, Overleaf

Other: Networking Simulaor 3 (NS3), iGraphics , Cisco-Packet-Tracer