

Adiba Shaira

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EDUCATION

Bangladesh University of Engineering and Technology (BUET)

Dhaka

Bachelor of Science in Computer Science and Engineering

Feb 2017 – May, 2022

- **Thesis:** The development of a novel consensus method to summarize a set of gene trees to estimate species tree. A species tree is a branching diagram or a tree showing the evolutionary relationships among various biological species. We are developing a two third consensus method which promise to keep the false positive rate zero in species tree estimation.

Supervised by **Dr. Md. Shamsuzzoha Bayzid**, **Dr. Rezwana Reaz**

- **CGPA: 3.68/4.00**

Holy Cross College

2014 - 2016

Higher Secondary Certificate

GPA : 5.00

WORK EXPERIENCE

Lecturer [[Website](#)]

June 2022 – Present

Department of CSE, [United International University](#), Dhaka

- Courses taught: System analysis and Design, Data Structure Lab, Computer Networking Lab

Software Engineer

April 2022 – June 2022

[Optimizely](#), Dhaka

TECHNICAL SKILLS

Languages: Python, Java, C/C++, JavaScript, SQL, PL/SQL, Latex

Database: Oracle, MySQL, MongoDB

Frameworks: Django, Bootstrap

Tools/Software: Git, PyCharm, IntelliJ, CodeBlocks, Visual Studio Code, Oracle SQL Developer, Jupyter Notebook, Wireshark

Libraries: Pandas, NumPy, Keras, Matplotlib, OpenCV, Scapy, OpenGL;

RESEARCH EXPERIENCE

Breast Ultrasound Image Segmentation

2022-Current

Supervisor: [Dr. Mohammad Saifur Rahman](#) (BUET)

- Accurate ultrasound image segmentation using MultiResUNet

Group meetup prediction by clustering and POI prediction

2022-Current

Supervisor: [Dr. Tanzima Hashem](#) (BUET)

- We attempt to address the problem of predicting the group meetup POI (point of interest) of a person at a given time where the group members are socially connected to each other.
- This research work will help ad agencies to provide more personalized ads. Also, Crime investigation agencies will be able to predict criminal activities by utilizing our work

Development of a novel consensus method to estimate species tree

2021 - Current

Supervisors: [Dr. Md. Shamsuzzoha Bayzid](#) (BUET) [Dr. Rezwana Reaz](#) (BUET)

- A species tree is a branching diagram or a tree showing the evolutionary relationships among various biological species. We are developing a two third consensus method which promise to keep the false positive rate zero in species tree estimation.

- The efficacy of a novel algorithm which used to generate phylogenetic tree is tested

ACADEMIC AND PERSONAL PROJECTS

Corona In Bangladesh | *Website*

2020

- Web platform created to serve as a information hub about the Covid-19 epidemic in Bangladesh
- Recognized by Bangladesh Government as a reliable Covid-19 related news outlet
- Library : NodeJS, Database : MongoDB,

Healthway-Online Diagnostic and Consultation Center | *Information System Design Project*

2021

- A website with online diagnostic facilities and hassle free online appointments with doctors from different hospitals
- Language :Javascript, Library : NodeJS, Database : MongoDB, Frontend : HTML,CSS Bootstrap

A Personal Food Blog | *Personal Software Project*

2020

- A website where anyone can post recipes,experiences about food and others can comment, like etc.
- Language :Javascript, Library : NodeJS, Database : MongoDB, Frontend : HTML,CSS Bootstrap

DHCP Starvation Attack Simulation | *Network Security Project*

2021

- Used python to launch a DHCP starvation attack on the wifi to exhaust the address space available to the DHCP servers for a period of time.
- Python, Scapy, SSH, VirtualBox VM, WireShark

Logistic Regression and AdaBoost for Classification | *Machine Learning Project*

2022

- Implemented a logistic regression classifier and used it in the AdaBoost algorithm for classification
- Python, Numpy, Pandas, Scikit Learn

Hidden markov model with viterbi and Baum Welch Algorithm | *Machine Learning Project*

2022

- Hidden Markov Model (HMM) implemented with the Viterbi and the Baum-Welch algorithm
- Python, Numpy, Pandas, Scikit Learn

Online Ride Sharing Service | *Database Project*

2019

- Developed a database system for easy accessibility of the users who will avail services from the app.
- Language: Java

AWARDS AND HONORS

Ada Lovelace Datathon by BDOC

2021

First Runner Up

- Developed a machine learning model to find the impact of Covid-19 in depression

Ada Lovelace Datathon by BDOC

2022

Second Runner Up

- Developed a machine learning model to predict taxi count to help analyzing traffic data

VOLUNTEERING AND LEADERSHIP EXPERIENCES

Chairperson

February 2021- May 2022

IEEE Computer Society BUET Student Branch Chapter

- In charge of overall organisation and running of the newly formed chapter including promotion and chapter development.

General Secretary

August 2019- February 2021

IEEE Computer Society BUET Student Branch Chapter

- Help to establish the new chapter for the first time in BUET

REFERENCES

[Dr. Md. Shamsuzzoha Bayzid](#), Associate Professor

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[Dr. Rezwana Reaz](#), Assistant Professor

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