



Md. Zarif Ul Alam

Software Developer at ICT Cell, BUET
BSc. in CSE from BUET

Experience


-  **Xu Lab, Carnegie Mellon University**


 Remote

Student Research Intern

Oct. '22 ~ Present

› Working on unsupervised object detection for tomograms


Medical Image ProcessingUnsupervised Object DetectionDeep Learning
-  **ICT Cell, BUET**


 Dhaka, Bangladesh

Software Developer

Dec. '21 ~ Sep. '22

› Creating a custom software from scratch to make advance payment for the office of Directorate of Advisory, Extension and Research Services (DAERS)


Rest APIBackend DevelopmentDjango REST FrameworkPostgreSQL
-  **Big Data Intelligence (BDI) Lab, Auburn University**


 Remote

Student Research Intern

May '21 ~ Mar '22

› Worked in Big Data Intelligence (BDI) Lab under Shubhra Kanti Karmaker, Assistant Professor, Auburn University, Alabama on Short Text Stream Clustering

Natural Language ProcessingMachine Learning
-  **Unilever**

 Dhaka, Bangladesh


**BizLearner (Machine Learning),
Unilever Forecast Engine**


Nov. '21 ~ Dec. '22

› Worked with a team that developed a new sales forecasting model for Unilever Bangladesh

Data EngineeringForecasting

Education

-  **Bangladesh University of Engineering & Technology**

 Bangladesh

B.Sc. (Engineering) – Computer Science


April 2018 ~ Present


› Thesis: “Automated Analysis of Parkinson's Disease with Remote Tasks”

› Final Year Software Development Project: Developed a tech interview preparation platform “IntDesk” using Django REST Framework and React


› Created a subset C compiler from scratch! Implemented a Ray Tracing pipeline, Wrote an Active Queue Management algorithm for Network Simulator 3, Created a paging framework for Xv6 Operating System and many [more!](#)


Projects

-  **IntDesk**


 June '22 ~ Aug. '22


› A tech interview preparation platform. Here the users can not only solve problems that are asked in interviews of different software companies, but can also take assesments and earn different badges to showcase their skills. They can also discuss about interview problems and many more topics!

Full Stack Software DevelopmentReactDjango REST FrameworkPostgreSQLDocker
-  **DealFinder**


 Feb. '22 ~ Apr. '22


› A platform where you can find all the latest tech deals and offers. Designed the system ground-up by building BPMN, Class & ER Diagram, Collaboration Diagram, Sequence Diagram and Mock UI. Also implemented a demo module.

System Design
-  **Yet Another C Compiler**

 Mar. '21

› Created a subset C compiler using Flex and Bison. Also implemented compiler optimizations like dead code elimination.

FlexBisonCompiler Design
-  **MooBot**


 Feb. '21

› Created a notification bot for Moodle, the default LMS for our department. It doesn't come with a built-in notification system. So I built one as a pet project! The bot was able to solve this problem by notifying about forum posts and different activities to my fellow classmates. It was later adopted by junior classes!

PythonDiscord APIGraph API


Find all projects [here!](#)

Research

-  **Automated Analysis of Parkinson's Disease with Remote Tasks** *[Ongoing]*

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


May '22 ~ Present




› Parkinson’s disease (PD) is a degenerative brain disorder that is usually observed among elderly people with symptoms like shaking, slowness and stiffness, difficulty with walking and balance.In general neurologists examine PD suspect patients where the patients are asked to perform some motor neuron tasks. The research goal of this project is to use computer vision techniques to do this diagnosis remotely using a simple automated online screening tool. In developing countries like Bangladesh, neurologists are scarce compared to the number of patients and a tool like this will enable people to get timely diagnosis and subsequent healthcare.
-  **Occam's Razor Strikes Again: Revisiting Short-Text Stream Clustering with Latest Sentence Embeddings** *[Under Revision]*

Supervisor(s) : [Dr. Anindya Iqbal](#) [Dr. Shubhra Kanti Karmaker](#)


May '21 ~ May '22


› We proposed a new method called One Pass Sentence Embedding Clustering (OPSEC) - an online one-pass algorithm that leverages similarity scoresbased on sentence embeddings to cluster short texts. Experiments with popular benchmark data-sets demonstrate that sentence-embeddings canoutperform existing state-of-the-art short text stream clustering methods in terms of clustering accuracy and quality

 Dhaka, Bangladesh

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Languages: C++ , Python ,
Java
Familiar with: C# , Go etc.
Frameworks: Tensorflow ,
Keras , PyTorch ,
Django REST Framework ,
React , Unity

 **Awarded** 5000\$ for
“Community Competition
Creator Prize” by *Kaggle*

 **Silver Medal** in “G2Net
Gravitational Wave Detection
Competition” by *Kaggle*

 **First Runners Up** in “Cloud
Computing Hackathon” at *BUET
CSE Festival, 2019*

★ **Finalist** in “CodeSamurai,
Inter-University Hackathon” at
Dhaka University, 2019


★ **Finalist** in “Datathon 2.0” by
Robi, 2019

Leadership

BUET CSE Fest, 2022
Lead Organizer, (2022)
Actively organized and set problems
for AI Contest, Inter-University
Hackathon and Deep Learning
Competition 'DL Sprint', which won
the best community competition prize
from Kaggle

*IEEE Computer Society, Student
Branch Chapter BUET*
Publicity Committee
Chairperson, (2022-2023)

*BUET Math Club (Onuronon/
অনুরণন)*
Executive Committee Member,
(2021-2022)

 [zarif98sjs](#)
 [zarif98sjs](#)
 zarif98sjs.github.io/mindcraft

Updated on Dec. 1, 2022
available online:
<https://zarif98sjs.github.io/resume>
Contact for further information