

EDUCATION

University of Tennessee **Chattanooga, TN** **Aug 2022 – present**

- **M.S. in Computer Science, CGPA: 4.00/4.00**
- **Concentration: Data Science**
- **Total Course Credits : 6**
- **Graduate Coursework:** Programming Languages for Advance Data Analytics (CPSC 5180), Fundamentals of Computer Science (CPSC 5000), Discrete Mathematics for Computer Science (MATH 2030), Introduction to Machine Learning (CPSC 5400)(Percentage - 99.65%), Principals of Data Analytics (CPSC 5240), Structuring Programs and Data (CPSC 5010)

Bangladesh University of Engineering and Technology **Dhaka, Bangladesh** **Feb 2016 – Feb 2021**

- **Bachelor of Science in Civil Engineering, CGPA: 3.19/4.00**
- **Concentration: Environmental Engineering**
- **Total Credit Hours: 160**

RESEARCH EXPERIENCE

Graduate Research Assistant **University of Tennessee at Chattanooga** **Sep 2022 – Present**

- Estimation of fitness advantages of SARS-CoV-2 variants in several geographic locations using Global Initiative on Sharing All Influenza Data(GISAID) data set.

TECHNICAL SKILLS

- **Programming Languages:** Python, Java, C++, R
- **Python Libraries:** Numpy, Pandas, matplotlib, Seaborn, Pytorch, Scikit-learn
- **Technologies:** Git, Linux, \LaTeX (Intermediate)
- **Geographic Information System (GIS) applications:** ArcGIS Pro, Arc Map
- **Computer Aided Design & Analysis of Structures:** SAP 2000, AutoCAD

RESEARCH AND PROJECTS

Graduate Academic Projects

- **Differential Population Growth Fitness: A Pairwise Comparative Approach to Estimate the Fitness Advantage of major SARC-CoV-2 Clades.**
The research focuses on estimating the SARS-CoV-2 variant with advanced fitness by log-transforming the ratio of two exponentially growing variants.
- **Phylogenetic Tree: The Use of Agglomerative Clustering to Understand The Evolution of the Omicron Sub-lineages.**

Conference Publication

- NDVI: Detection of Vegetation Change Using Remote Sensing & GIS- A Study on Barishal City Corporation, Bangladesh. Presented at 6th **International Conference on Civil Engineering for Sustainable Development, ICCESD, 2022**. Citation : **3 (ResearchGate)**

Conference Presentation

- Presented **Differential Population Growth Fitness: A Pairwise Comparative Approach to Estimate the Fitness Advantage of major SARC-CoV-2 Clades** at **MCBIOS 2023** at University of Dallas.

Undergraduate Thesis

- Geo-spatial Spreading of COVID-19 Cases Over Time and Relation with PM2.5 and Meteorological Parameters in Dhaka City.

TEST SCORES

Graduate Record Examination (GRE) - 27 December, 2021

Quantitative Reasoning	Verbal Reasoning	AWA
157	148	3.5

International English Language Testing System (IELTS) – 3 March, 2022

Listening	Reading	Writing	Speaking	Overall
8.5	7	7	6.5	7.5

CERTIFICATIONS

- Datacamp certification on Python
- Datacamp certifications on R

HONORS AND AWARDS

- **Dean's Merit Scholarship**- 2023, The University of Tennessee at Chattanooga, Awarded for demonstrating excellent academic performance
- **Education Board Scholarship (Grade - 5)**- 2007, Barisal Education Board, Bangladesh
- **Junior School Certificate Examination (JSC) Education Board Scholarship** - 2010, Barisal Education Board, Bangladesh
- **Secondary School Certificate Examination (SSC) Education Board Scholarship** - 2013, Barisal Education Board, Bangladesh
- **Higher Secondary School Certificate Examination (HSC) Education Board Scholarship** - 2015, Dhaka Education Board, Bangladesh