

HIMADRI DEB ROY

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PROFESSIONAL SUMMARY

Statistics and Mathematics major enthusiastic about data-driven solutions. Passionate about Bio-statistics, Spatial Statistics, Data Science, Machine Learning. Skilled in statistical analysis, programming, and data visualization. Eager to apply expertise to solve complex problems and extract insights from diverse datasets.

EDUCATION

Texas A&M University- Commerce

August 2023 - Present

Master of Science in Mathematics - Thesis Track

University of Dhaka

February 2016 - January 2021

Bachelor of Science in Statistics

SKILLS

Programming & Scripting Languages:

R, Python, Latex, C, Magma

Software & Tools:

Rstudio, Jupyter Notebook, STATA, IBM SPSS, MS Office

RESEARCH & PROJECTS

Model Selection Using Log-linear Model Based on NHANES Data

Spring 2024

Texas A&M University-Commerce, Department of Mathematics.

Advisor: Dr. Nahid Hasan

- Optimized model performance and interpretability.
- Performed Logistic Regression and Variable Selection on pre-pandemic NHANES dietary data using R.
- Investigated cardiovascular disease as a binary outcome based on dietary habits and nutritional components.

Principal Component Analysis For Training Data Distillation And Augmentation

Fall 2023

Texas A&M University-Commerce, Department of Mathematics.

Advisor: Dr. Nikolay M. Sirakov

- Used principal component analysis to distill and augment medical data.
- Used four classifiers (Neural Network, Logistic Regression, Support Vector Machine -Linear Kernel and Support Vector Machine -Polynomial Kernel) to measure the quality of the model.

Influence of Social Media on Students in Bangladesh

September 2019

University of Dhaka, Department of Statistics.

- Conducted field analysis to collect data from 500 samples using questionnaires.
- Used R and SPSS to analyze and interpret the data.

WORK EXPERIENCE

Graduate Assistant-Teaching

August 2023 - Present

Texas A&M University-Commerce, Department of Mathematics

Teacher of Record

- Intermediate Algebra (MATH-131) *Fall 2023*
 - Prepared & presented lectures with standardized course materials.
 - Assessed students' learning on regular basis & graded tests and finals with clear feedback.
- Recitation for Calculus I (MATH 2413) *Spring 2024*
 - Recited the study materials and presented homework solutions every week.

Instructor: Dr. Mehmet Celik
- Recitation for Calculus II (MATH 2414) *Spring 2024*
 - Recited the study materials and presented homework solutions every week.

Instructor: Dr. Nahid Hasan
- Teaching Assistant for Calculus III (MATH 2415) *Summer II 2024*

Instructor: Dr. Tingxiu Wang
- Teaching Assistant for Elementary Statistical Methods (MATH 1342) *Fall 2023*

Instructor: Dr. Nahid Hasan

Online Learning Platform- Classroom

- Prepared & presented video tutorials on mathematics and physics for high school students.

”Let’s Learn At Home” - A project by the Government of Bangladesh

- Prepared & presented a lecture on Mathematics on the National Television of Bangladesh-BTV for high school students during Covid-19 epidemic.

AWARDS & SCHOLARSHIPS

Bill, Gloria & James Aslan Graduate Student Endowment Fall 24- Spring 25
Mathematics graduate student scholarship

Rachel Lafferty Mathematics Endowment Fall 23- Spring 24
Mathematics graduate student scholarship

Scholarships Awarded By The Government of Bangladesh 2008, 2011 and 2013

- Awarded a scholarship for outstanding results in Primary Education.
- Awarded a scholarship for outstanding results in Junior Secondary Education.
- Awarded a scholarship for outstanding results in Secondary Education.