

Mohammad Rafiqul Islam

🏠 1900 Heritage Grove Cir
Apt 128
Tallahassee, FL 32304

✉ Email: rafiqfsu@gmail.com
🗣 Zoom ID: 6185241865
☎ Cell: +1 (330) 565-9976
🌐 www.mrafiqul.com

EDUCATION

- FLORIDA STATE UNIVERSITY (FSU) TALLAHASSEE, FLORIDA, USA
(Currently Enrolled)
PhD in Financial Mathematics Program May, 2025 (Anticipated)
- YOUNGSTOWN STATE UNIVERSITY (YSU) YOUNGSTOWN, OHIO, USA
Master of Science, Mathematics May, 2020
Minor in Statistics, Data Analytics, and Actuarial Science
- UNIVERSITY OF DHAKA (DU) DHAKA, BANGLADESH
Bachelor of Science, Mathematics November, 2014
Minor in Statistics and Physics.
- SOCIETY OF ACTUARIES (SOA) SCHAUMBURGH, IL, USA
Probability: Exams P March, 2019
Financial Mathematics: Exam FM March, 2019

TEACHING EXPERIENCE

Recitation Instructor

DEPARTMENT OF MATHEMATICS TALLAHASSEE, FLORIDA, USA
FLORIDA STATE UNIVERSITY Fall 2021 to Present

My role as a recitation instructor for calculus I course at FSU mathematics includes organizing and managing poster presentations, group assignments, and grading test papers.

Tutor

DEPARTMENT OF MATHEMATICS ORLANDO, FLORIDA, USA
UNIVERSITY OF CENTRAL FLORIDA Fall 2020

Employed as the undergraduate mathematics tutor at the Mathematics Success Center (MSC). Primarily helped students to understand pre-calculus, college algebra, trigonometry, calculus, differential equations, and other undergraduate mathematics courses.

Grader

DEPARTMENT OF MATHEMATICS ORLANDO, FLORIDA, USA
UNIVERSITY OF CENTRAL FLORIDA Spring 2021

Worked as a grader for MAC 2312 Calculus With Analytic Geometry course which includes differentiation and integration of exponential, logarithmic, inverse trigonometric functions; techniques of integration; further applications of integration; parametric equations, polar coordinates; infinite sequences and series.

Instructor:

Responsible for the preparation and delivery of all lectures, making question paper for all exams, and the grading of tests and homework assignments for the following courses:

- College Algebra Fall 2018
- Trigonometry Fall 2019

Teaching Assistant:

Responsible for reviewing course assignments once a week with approximately 30 students, grading homework, administrating and grading course exams, and delivering lectures when the professor was out of town for the following course:

- College Algebra Spring 2019

Tutor:

Work as a tutor at the *Mathematics Assistance Center (MAC)* at YSU to help freshmen and sophomore students to understand the following courses:

- Statistical Literacy and Critical Reasoning
- Pre-calculus and Trigonometry
- College Algebra

Middle School Level

LAKELAND TOURS LLC D.B.A WORLDSTRIDES
ENVISION EMI, LLC

VIENNA, VIRGINIA, USA

Advisor: Civil Engineering Strand, STEM Explore 2019

June 16, 2019 to July 19,2019.

- Worked as an advisor of the civil engineering strand for the weekly summer camp for middle school students
- Was responsible for providing the best experience possible for all participants of the program through facilitation of all educational curriculum
- Helped the scholars understand design thinking: Empathize, Define, Ideate, Prototype, and Test to build a Mars habitat using CAD software and physical 3D models

PROFESSIONAL INVOLVEMENT

- DELTA LIFE INSURANCE COMPANY LIMITED DHAKA, BANGLADESH
Assistant Vice President, Actuarial and Reinsurance Department 09/2017 to 07/2018
 - Calculated all types of claims (death, surrender, and maturity) using excel spreadsheets
 - Processed approximately 500 claims each week and submitted corresponding statistical reports to the higher authority
 - Worked in a team to develop a new short-term endowment assurance product which played an important role to increase the company's new business
 - Refurbished a without risk endowment product which was out of the sale
 - Priced insurance premiums based on different risk factors for bigger clients which impacted our life fund significantly

- Calculated reserves for group endowment, term and premium back policies which was a vital part of the final valuation report
 - Liaised directly with the consulting actuary and provided all sorts of technical and documental supports during actuarial valuation
- SANDHANI LIFE INSURANCE COMPANY LIMITED DHAKA, BANGLADESH.
 Actuarial Trainee, Actuarial and Technical Department 09/2016 to
08/2017
<https://www.overleaf.com/project/5e01daa16dd7730001d7ea3c>
 - Prepared monthly report for the insurance regulatory authority using raw data obtained from the IT server
 - Generated surrender factor using excel spreadsheets
 - Calculated group insurance liabilities using group valuation model provided by the actuary
 - Attended group business meetings to explain the benefit and features of our group insurance products

PUBLICATIONS

- Mostafa, Fahad; Saha, Pritam; Islam, Mohammad Rafiqul, and Nguyen, Nguyet, "GJR-GARCH Volatility Modeling under NIG and ANN for Predicting Top Cryptocurrencies." *Journal of Risk and Financial Management* 14.9 (2021): 421.
- Islam, Mohammad Rafiqul, and Nguyet Nguyen. "Comparison of Financial Models for Stock Price Prediction." *Journal of Risk and Financial Management* 13.8 (2020): 181.

PROJECTS

- *Lending Club Data Analysis*
 In this project, we apply data analytic methods to predict loan status for the borrowers and lenders. Loans taken by the borrowers can be fully paid, default or charged off and these situations depend on hundreds of factors. In this paper we will primarily deal with few of those predictor variables and try to make prediction for loan status.

- *The Relationship Between Forced Sexual Activities And Suicidal Attempts Of The Victims*

In this project, we apply data-analytic methods to further explore the relationship between forced sexual activities and suicidal behavior among adolescents in the United States. Our findings build on existing literature that explores this relationship. The sample of the study was taken from the Youth Risk Behavior Surveillance System survey 2017. We used a chi-squared test to find the association of forced sexual activities and suicidal behavior, and we found a strong association. Then we used bivariate logistic regression analysis to ascertain the association of race, age, sex, and education with suicidal attempts after experiencing forced sexual activity (sexual assault). The results of the following paper provide greater insight into the relationship between forced sexual activities and suicide attempts by adolescents.

CONFERENCES

- 20th International Mathematics Conference 2017 hosted by Bangladesh Mathematical Society, Dhaka, Bangladesh
- 6th Annual Midwest Actuarial Student Conference hosted by the Society of Actuaries and the University of Wisconsin Milwaukee, WI, USA

- 1st SRU SAS Analytics Day hosted by Slippery Rock University and SAS Institute

AWARDS

- Outstanding Graduate Student in Statistics Award for the 2019-2020 academic year.
- Society of Actuaries (SOA) travel grant to attend 6th Annual Midwest Actuarial Student Conference, University of Wisconsin, Milwaukee, WI (\$125.00)
- Graduate College Premiere Scholarship, Youngstown State University.
- MetLife Bangladesh Actuarial Study Program 2015.

MEMBERSHIPS

- Bangladesh Mathematical Society: Life Member
- Institute and Faculty of Actuaries (IFoA), UK: Student Member
- Society of Actuaries (SOA), USA: Student Member
- Society for Industrial and Applied Mathematics (SIAM), USA: Student Member
- American Statistical Association-ASA: Student Member
- Royal Statistical Society (RSS): Student Member

REFERENCES

Nguyet (Moon) Nguyen, PhD
Associate Professor and Supervisor
Department of Mathematics & Statistics,
Youngstown State University.
Youngstown, OH, 44555.
Email: ntnguyen01@ysu.edu
Phone: +1 (330) 941-1805

Giray Okten, PhD
Associate Chair for Graduate Studies, Professor
Department of Mathematics,
Florida State University.
Tallahassee, FL, 32306.
Email: okten@math.fsu.edu
Phone: +1 (850) 644-8713

Andy Chang, PhD
Professor
Department of Mathematics & Statistics,
Youngstown State University.
Youngstown, OH, 44555.
Email: gchang@ysu.edu
Phone: +1 (330) 941-1818