# TAREO UZ ZAMAN

tzaman@mun.ca

▼ 57 Allandale Road

St. John's, NL

in taregzaman

TaregZaman

# EXPERIENCE

### Postdoctoral Fellow **Memorial University**

April 2023 - Present

St. John's, NL, Canada

## Research and Teaching Assistant **Memorial University**

September 2018 - March 2023 St. John's, NL, Canada

January 2016 - December 2017

- Created a clustering method for forming balanced aggregates.
- Implemented a CSR-based sparse matrix wrapper for PyTorch with CUDA acceleration for matrix operations and automatic differentiability. •
- Proposed multigrid graph neural networks for learning optimized parameters in domain decomposition methods. §
- Advanced the field with a reduction-based AMG method.
- Generalized optimized Schwarz domain decomposition methods using Graph Convolutional Neural Networks and unsupervised learning. •
- Solved a combinatorial optimization problem in an AMG method.
- Developed numerical model for a time-fractional diffusion equation.
- Reviewed fluid flow in porous media with memory approach.
- Led a laboratory course in numerical analysis and assisted in the teaching of linear algebra, mathematics of finance, fluid mechanics, and reservoir engg.
- Mentored high school students for university-level math readiness.

### Residence Coordinator **Memorial University Student Residences**

- September 2022 Present
- St. John's, NL, Canada
- Supervised and mentored residence assistants.
- Implemented and enforced community standards and policies.
- Organized educational, social, and cultural programming for residents.
- Handled emergency situations and resolved resident conflicts.

# **Assistant Professor**

# Chittagong University of Engineering & Technology (CUET)

- **i** July 2015 September 2018
- Chittagong, Bangladesh
- Investigated the potential for carbon sequestration in Bangladesh.
- Taught reservoir simulation, and computational laboratory.

### **Assistant Provost** Shaheed Tareg Huda Hall, CUET

**October 2013 - January 2016** 

Chittagong, Bangladesh

#### Lecturer

#### Chittagong University of Engineering & Technology (CUET)

- October 2011 July 2015
- Chittagong, Bangladesh
- Created academic curriculum.
- Specified instrumentation and designed laboratory settings.
- Facilitated industry partnerships and organized seminars and field trips.
- Taught rock mechanics, drilling engg., reservoir engg., and geology.
- Mentored undergraduate students in thesis projects.

# **EDUCATION**

## PhD in Scientific Computing **Memorial University**

Sep 2018 - Mar 2023 ▼ St. John's, NL GPA: 4.0 / 4.0, Avg. Marks: 97%

### MEng in Oil & Gas Engineering **Memorial University**

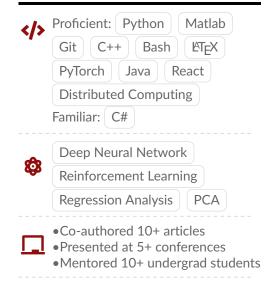
GPA: 4.0 / 4.0, Avg. Marks: 97%

# BS in Petroleum & Mining Engg. Shahjalal University of Science & Tech.

Aug 2005 - Jul 2011 

■ Sylhet, Bangladesh GPA: 3.85 / 4.0

# **SKILLS**



# **AWARDS**

Hard-working

Motivator

Q Dean's Doctoral Award (2018-2022)

Philomath

- S. F. A. Aldrich Graduate Award (2019)
- Q Dr. Noreen Golfman Fellowship (2019)
- 2 International Doctoral Student Award. U of Waterloo (2018) (declined)
- Charles Butler Grad Scholarship (2017)
- The Dr. Jack Clark Grad Award (2017)
- Merit Scholarship (2006-11)

# COURSEWORK

#### **Graduate (Selected)**

Computer based Tools & Applications

- Matrix Computations & Applications
- Numerical Solution Iterative Methods