

TAREQ UZ ZAMAN

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✉ 57 Allandale Road

📍 St. John's, NL

🌐 tareqzaman

👤 TareqZaman

EXPERIENCE

Postdoctoral Fellow Memorial University

📅 April 2023 – Present

📍 St. John's, NL, Canada

Research and Teaching Assistant Memorial University

📅 September 2018 – March 2023

📍 January 2016 – December 2017

St. John's, NL, Canada

- 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)

📅 July 2015 – September 2018

📍 Chittagong, Bangladesh

- Investigated the potential for carbon sequestration in Bangladesh.
- Taught reservoir simulation, and computational laboratory.

Assistant Provost

Shaheed Tareq 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

📅 Jan 2016 – Dec 2017

📍 St. John's, NL

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



Proficient:

Python

Matlab

Git

C++

Bash

LaTeX

PyTorch

Java

React

Distributed Computing

Familiar: C#



Deep Neural Network

Reinforcement Learning

Regression Analysis

PCA



• Co-authored 10+ articles

• Presented at 5+ conferences

• Mentored 10+ undergrad students



Hard-working

Philomath

Motivator

AWARDS



Dean's Doctoral Award (2018-2022)



F. A. Aldrich Graduate Award (2019)



Dr. Noreen Golfman Fellowship (2019)



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