

# Madiha Mariam Ahmed

## Artificial Intelligence (AI) Enthusiast

Data Engineer and Researcher skilled in data analysis, visualization, and statistics. Foundationally trained in probabilistic Machine Learning. Proficient in data manipulation, exploratory analysis, and understanding models/algorithms mathematically. Experienced in interdisciplinary research using Python frameworks like NumPy, Pandas, Matplotlib, Seaborn and PyTorch. Committed to continuously expanding my knowledge and skills. Actively seeking a position where I can make meaningful contributions to society.



madiha1ahmed@gmail.com



+1 (905) 325 1764



Thorold, Canada

## WORK EXPERIENCE

### Data Engineer

#### DigiBiotics

07/2024 - Pr

Mississauga, ON

DigiBiotics pioneers medical innovation by employing AI and ML to transform medical data analysis

Tasks

- Collect, pre-process and analyse data for projects related to mental health and lung disease.
- Assess existing healthcare processes to identify integration points for ML and AI.
- Collaborate with healthcare professionals, data scientists, and IT teams to ensure data accuracy, relevance, and compliance for AI models.
- Design technical solutions aligning with the company's strategic goals.
- Act as a liaison, communicating technical solutions to non-technical stakeholders and gathering feedback.

Contact : Dr. Meraj Khan - meraj.khan@digibiotics.com

### Graduate Research Assistant

#### Computer Science, Brock University

06/2023 - 05/2024

St. Catharines, ON

Achievements

- Involved in AI-driven research for multi-target drug design, under a prestigious Federal AI for Design Challenge program.
- Our collaborative research article, titled "Several Birds with one stone": Exploring the Potential of AI Methods for Multiple-Target Drug Design", has been submitted to various esteemed academic conferences (NeurIPS, BMC and ISMB) and is currently under review.
- Worked on a counter-docking project for the research article

Contact : Dr. Yifeng Li (Canada Research Chair) - yli2@brocku.ca

### Graduate Teaching Assistant

#### Mathematics and Statistics, Brock University

01/2022 - 04/2024

St. Catharines, ON

Achievements

- Proficient in enabling conducive learning atmospheres
- Adeptly resolved academic inquiries for student success
- Evaluated assignments and projects using Crowdmark software
- Facilitated Math Learning Center Hours and weekly labs
- Assisted students with Statistics assignments, Python Programming, and Maple Software.

## EDUCATION

### Master of Science in Mathematics and Statistics (Thesis)

#### Brock University

01/2022 - 01/2024

Percentage: 92%

### Bachelor of Technology (Honors) in Data Science

#### Jain University

08/2017 - 08/2021

GPA: 8.183

## SKILLS

Python Programming

Mathematics and Statistics

Data Analysis and Visualization

Machine Learning

Interdisciplinary Research

Teamwork

Continuous Learning

Communication

Conference Presentations

## CONFERENCE PRESENTATIONS

### Faculty of Mathematics and Science (FMS) Graduate Conference (09/2023)

Presenter for "Attention-based molecular generative model integrated with Deep Evolutionary Learning for multi-objective drug design"

### 3 Minute Thesis (3MT) (04/2023)

Presenter for "AI-Generative model for de novo multi-target drug design for Cancer". Qualified as top 7 for second round within Brock University

### Faculty of Mathematics and Science (FMS) Grad Conference (09/2022)

Presenter for "Deep Clustering of high-dimensional and complex molecular data"

## ACADEMIC SCHOLARSHIPS

Match of minds 2023 (05/2023)

DGS Spring Research Fellowship (04/2023)

International Fellowship (01/2022)

Graduate Fellowship (01/2022)

## DIPLOMA CERTIFICATE

### Bioinformatics - Algorithms and Applications (01/2021 - 04/2021)

Indian Institute of Technology - Madras (IIT-M)

## LANGUAGES

English

Full Professional Proficiency

French

Limited Working Proficiency

## INTERESTS

Teaching

Reading

Coding

Crochet

Baking

Volunteering