

# HABIBUR RAHMAN

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## EDUCATION

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**M.Sc. in Computing Science, GPA: 3.8/4**  
UNIVERSITY OF ALBERTA

Jan 2021 – Sep 2023  
EDMONTON, AB, CANADA

**B.Sc. in Computer Science & Engineering, GPA: 3.77/4**  
RAJSHAHI UNIVERSITY OF ENGINEERING & TECHNOLOGY

Mar 2013 – Dec 2017  
RAJSHAHI, BANGLADESH

## EXPERIENCE

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**Machine Learning Developer**  
AWELE TECHNOLOGIES INC.

Feb 2023 – Present  
EDMONTON, AB, CANADA

- Designed a data collection and utilization pipeline for cross-border shipping, resulting in a 100% increase in efficiency by automating previously manual processes.
- Developed a recommendation-based algorithm to predict the best possible shipping routes with the highest customer satisfaction, improving route accuracy by 50% and reducing shipping costs by optimizing cost and service time.
- Created the API on Django and deployed it on Heroku, ensuring high availability and scalability.

**Graduate Research & Teaching Assistant**  
UNIVERSITY OF ALBERTA

Jan 2021 – Sep 2023  
EDMONTON, AB, CANADA

- Introduced a novel variant of the simulated annealing algorithm for addressing program synthesis tasks that leverage a Graph Neural Network (GNN) for sampling a node from the Abstract Syntax Tree (AST), which is then mutated to generate a new program.
- Led an undergrad lab section for the *Practical Programming Methodology* course by preparing lab scripts, evaluating submissions, and helping students solve exercise problems.

**Software Engineer**

Jul 2019 – Dec 2020

SAMSUNG R&D INSTITUTE BANGLADESH

DHAKA, BANGLADESH

- Developed an internal automation tool to convert the Android localization strings for the Windows platform that reduced the string processing time from 120 minutes to 120 seconds.
- Developed the new tag feature for Samsung Notes V3.X and up from concept.

## PROJECTS

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**Synthesizing Libraries of Programs by Optimizing an Auxiliary Function**

Dec 2021 – Sep 2023

- Proposed a novel approach by augmenting the program library and guiding the bottom-up search for reverse drawing tasks to generate high-quality programs.

**Debiasing Multiclass Demographics in Language Models**

Sep 2021 – Dec 2021

- Implemented a new regularizer to debias multiclass demographics in language models, which reduced the biases for several individual classes within a demographic
- Contributed a word list for four demographics to evaluate the fairness of language models.

**Data Augmentation in NMT: A Case-study for English to Portuguese**

Jan 2021 – Apr 2021

- Developed a new method for data augmentation in translation tasks by evaluating its performance on Recurrent Neural Network with LSTM and Transformer.

## HACKATHONS / COMPETITIVE PROGRAMMING

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- 4th place among 15 teams at University of Alberta Programming Contest Mar 2022
- 6th place among 69 participants at A Perfect Fit: HackerEarth ML Challenge Sep 2021
- 48th place among 966 participants in the Codechefs' May Cook-Off 2016
- 1st place among 20 teams from Rajshahi Division at ACM - ICPC Dhaka Regional 2016

## TECHNICAL SKILLS

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- Skills & Tools:** DSA, OOP, CI/CD, Git, Perforce, Agile, Jira, Jupyter, Cluster, Linux
- Languages:** Python, R, C/C++ , C#, Java, HTML, CSS, PHP, Bash, SQL
- Libraries:** Numpy, Scikitlearn, Matplotlib, Pandas, TensorFlow, PyTorch, UWP, BootStrap, Tableau