

Habibur Rahman

GRADUATE RESEARCH ASSISTANT FELLOW · UNIVERSITY OF ALBERTA

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Research Interests

- Program Synthesis
- Machine Learning
- Reinforcement Learning

Education

M.Sc. in Computing Science

Jan'21 – Present

UNIVERSITY OF ALBERTA

- Research Topic: “Development of heuristic search and machine learning algorithms for synthesizing human-readable computer programs encoding strategies for solving sequential decision-making problems”
- Supervisor: **Dr. Levi Lelis**
- Cumulative GPA: 3.7 out of 4.00

B.Sc. in Computer Science & Engineering

Dec 2017

RAJSHAHI UNIVERSITY OF ENGINEERING & TECHNOLOGY (RUET)

- Thesis: “Solving Percentage Word Problems by Semantic Parsing and Reasoning”
- Cumulative GPA: 3.77 out of 4.00
- Position: 6th among 117
- Award: Student of The Year (4th Academic Year)

Experience

Graduate Teaching Assistant

Fall 2021

UNIVERSITY OF ALBERTA, CANADA.

- Course: CMPUT 201 - Practical Programming Methodology
- Instructor: Dr. Guohui Lin

Graduate Research Assistant Fellow

Summer 2021

UNIVERSITY OF ALBERTA, CANADA.

- Research Topic: “Synthesizing Programs Using Graph Neural Network”
- Supervisor: Dr. Levi Lelis

Graduate Teaching Assistant

Winter 2021

UNIVERSITY OF ALBERTA, CANADA.

- Course: CMPUT 201 - Practical Programming Methodology
- Instructor: Dr. Sarah Nadi & Dr. Ildar Akhmetov

Software Engineer

Jul 2019 – Dec 2020

SAMSUNG R&D INSTITUTE BANGLADESH LIMITED (SRBD), Dhaka - 1205, Bangladesh.

- Responsible for research and development of Convergence / IoT solutions in Windows Platform.
- Framework: Universal Windows Platform
- Language: C++, C#, XAML

Lecturer, Department of Computer Science and Engineering

Jan 2018 – Jul 2019

UNIVERSITY OF INFORMATION TECHNOLOGY & SCIENCES (UITS), Bangladesh

Publications

Habibur Rahman, Julia Rahman and Asmaul Husna. “WALGES: Weighted Probability Based Scoring Approach for Solving Algebraic Word Problems using Semantic Parsing”. In: IEEE International Conference on Electrical, Computer and Communication Engineering (ECCE), 7–9 February, 2019. <https://doi.org/10.1109/ECACE.2019.8679393> ECCE'19

Asmaul Husna, **Habibur Rahman** and Emrana Kabir Hashi. “Statistical Approach for Classifying Sentiment Reviews by Reducing Dimension using Truncated Singular Value Decomposition”. In: IEEE International Conference on Advances in Science, Engineering and Robotics Technology (ICASERT-2019). <https://doi.org/10.1109/ICASERT.2019.8934507> ICASERT'19


Honors and Awards


Student of the Year, Department of Computer Science and Engineering 2015
RAJSHAHI UNIVERSITY OF ENGINEERING AND TECHNOLOGY


Divisional Champion 2016
ACM - INTER COLLEGIATE PROGRAMMING CONTEST, DHAKA REGIONAL

Runner Up, RoboTour and Programming Contest 2015
IEEE STUDENT BRANCH, RUET

Software Projects

Bangla PDF to Bangla DOC Converter 2017
Language: JAVA,  habibrahmanbd/BanglaPDFtoBanglaDOC
“Desktop application to convert Document Files(.docx) from PDF files(.pdf)”

Online Judging System 2015
Language: HTML, CSS & PHP  habibrahmanbd/onlinelabsystem
“To host programming contests online where platform has code compilation, highlight, submitting features on user side and on admin site, problem creation, update, input file, output file, run time etc. features are available”

Daily Calorie Calculator 2014
Language: JAVA  habibrahmanbd/dailyCalorieCalculator
“Desktop Application to calculate daily Life Calorie earn and burn”

Analytical Problem Solving

- Participant, ICPC Dhaka Regional, Bangladesh 2016
- Participant, National Collegiate Programming Contest, Bangladesh 2015 & 2016
- Participant, Cybarnauts National Programming Contest 2016
- Participant, 8th ICT Fest Programming Contest 2016
- Participant, RoboTour and Programming Contest, IEEE RUET Student Branch 2015
- Participant, BUET Inter University Programming Contest 2016
- Participant, RUET Intra University Programming Contest 2014
- Participated 50+ contests in Codeforces, *Rating*: 1448
- Participated 20+ contests in Codechef, *Rating*: 1977
- Participated 15+ contests in Toph, *Username*: habib_rahman
- Solved 195 in Light OJ, *User ID*: 9823
- Solved 177 in Uva Online Judge *User ID*: 234262

Memberships

- Member, Lelis Research Group Summer 2021
- Member, Syntax and Semantics Research Group, Bangladesh 2019
- Member, RUET Analytical Programming Lab 2013 – 2017
- Member, Robotic Society of RUET 2014 – 2017

Services

- Departmental Admin, Department of Finance & Marketing, International Students' Association, University of Alberta Jul 2021 – Present
- Programming Contest Mentor, UITS Computer Club Jan 2018 – Jun 2019
- Problem Setter and Judge, Devskill Contest'15, RUET Codemash, RUET GyanJam, UITS AZPC 2017
- Coach, Teams for Programming Contests of UITS 2018–2019

Technical Skills

- Programming Languages: C/C++, Python, C#, Java, Matlab
- Libraries: Numpy, Scikitlearn, Matplotlib
- Frameworks: .NET, UWP
- Scripting: bash
- Web: HTML, CSS, PHP, JavaScript, Bootstrap4

Teaching

- CMPUT201 - Practical Programming Methodology Winter 2021
- CSE 101 - Introduction to Computer Systems Spring 2018 – Summer 2019
- CSE 103 - Structured Programming Language Spring 2018 – Summer 2019
- CSE 105 - Discrete Mathematics Spring 2018 – Summer 2019
- CSE 203 - Object Oriented Programming Language Spring 2018 – Summer 2019
- CSE 206 - Web Technology Spring 2018
- CSE 207 - Data Structures Spring 2018 – Summer 2019
- CSE 213 - Algorithms Spring 2018 – Summer 2019
- CSE 401 - Artificial Intelligence Spring 2018

Web Profiles

- Google Scholar: <https://scholar.google.com/citations?user=04qfMHwAAAAJ>
- Research Gate: https://researchgate.net/profile/Habibur_Rahman51
- Blog: <http://blog.habibrahman.me>
- LinkedIn: <https://www.linkedin.com/in/habibrahmanbd/>
- Github: <https://www.github.com/habibrahmanbd/>
- Quora Blog: <https://habibrahman.quora.com/>
- ICPCID: <https://icpc.baylor.edu/ICPCID/ZRGSWBPI6H06>