Tasfia Zahin

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EDUCATION

The Pennsylvania State University

Pennsylvania, USA

Ph.D. Candidate, Computer Science and Engineering

2021 - Present

• Advisor: Dr. Mingfu Shao

• Research area: Computational Biology

Bangladesh University of Engineering and Technology (BUET) Dhaka, Bangladesh

BS.c. in Computer Science and Engineering

2015 - 2019

• CGPA: 3.90/4.00

Work Experience

The Pennsylvania State University

Graduate Research/Teaching Assistant

Ahsanullah University of Science and Technology (AUST)

On study leave, Department of Computer Science and Engineering

Dhanmondi Tutorial

Teacher

Pennsylvania, USA

2021 - Present

Dhaka, Bangladesh

Dhaka, Bangladesh

Publications

- 1. Zhezheng Song*, Tasfia Zahin*, Xiang Li, Mingfu Shao. Accurate Detection of Tandem Repeats from Error-Prone Sequences with EquiRep. *Genome Research*, 2025. * Equal Contribution
- 2. Zhezheng Song*, Tasfia Zahin*, Xiang Li, Mingfu Shao. Accurate Detection of Tandem Repeats from Error-Prone Sequences with EquiRep. *Proceedings of 29th International Conference on Research in Computational Molecular Biology (RECOMB 2025).** Equal Contribution
- 3. Tasfia Zahin*, Md Hasin Abrar*, Mizanur Rahman Jewel, Tahrina Tasnim, Md Shamsuzzoha Bayzid, Atif Rahman. An alignment-free method for phylogeny estimation using maximum likelihood. *BMC Bioinformatics*, 2025.
 - * Equal Contribution
- 4. Tasfia Zahin, Qian Shi, Carl Zang, Mingfu Shao. Accurate Assembly of Circular RNAs with TERRACE. *Genome Research*, 2024.
- 5. Tasfia Zahin, Qian Shi, Carl Zang, Mingfu Shao. Accurate Assembly of Circular RNAs with TERRACE. Proceedings of 28th International Conference on Research in Computational Molecular Biology (RECOMB 2024).

Technical Skills

Languages: C++, C, Python, Java, MATLAB, Assembly (Intel 8086)

Scripting Languages: LATEX, Bash

Genome Browser: Integrative Genome Browser (IGV)

Deep Learning Libraries: Keras, Pytorch Database Language: SQL, PL/SQL

Hardware: Proteus, Atmel Studio, Arduino

Academic Experiences

- Research and poster presenter at RECOMB 2025.
- Research presenter at RECOMB 2024.
- Sub-reviewer of RECOMB 2025, RECOMB 2024, ISMB 2024, WABI 2024, WABI 2023, RECOMB 2022, ACM-BCB 2022.
- Volunteer at the 2024 Workshop on Emerging Methods for Sequence Analysis (WEMSA 2024) organized by The Pennsylvania State University.
- Research presenter at the 2023 Workshop on Emerging Methods for Sequence Analysis (WEMSA 2023) organized by The Pennsylvania State University.
- Attendee of ISMB 2022 Conference at Madison, Wisconsin.
- Attendee of RECOMB 2020 Virtual Conference.
- Member of BUET CS Bioinformatics group, a platform for sharing ideas and related research topics.

Other Experiences

- Member of IT support sub-committee, The 23rd International Conference on Computer and Information Technology (ICCIT) 2020, hosted by Ahsanullah University of Science and Technology (AUST).
- Member of executive committee, Ahsanullah University of Science and Technology (AUST) Robotics Club.
- Mentor of Bangladeshi Women in Computer Science and Engineering (BWCSE) Mentormentee program, Bangladesh University of Engineering and Technology (BUET).
- Member of Bangladeshi Women in Computer Science and Engineering (BWCSE), Bangladesh University of Engineering and Technology (BUET).
- Delegate of Bangladesh Youth Leadership Summit 2016.
- Adjudicator of BRAC Inter-University Debate Competition 2016.
- Member of Bangladesh University of Engineering and Technology (BUET) Debating Club.
- Media and Publication Secretary of English Medium Buetian's Association (EMBA), Bangladesh University of Engineering and Technology (BUET).

Awards and Honors

- Winner of Huawei Seeds for the Future, 2019, Travel Grant by Huawei Technologies.
- Dean's List Honor, 2015-2019, Bangladesh University of Engineering and Technology (BUET).
- Daily Star O and A Level Award of Excellence, 2012 and 2014, The Daily Star Newspaper, Bangladesh.

REFERENCE

Dr. Mingfu Shao

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University Park, PA 16802
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Dr. Atif Hasan Rahman

Associate Professor
Department of Computer Science and Engineering
Bangladesh University of Engineering and Technology (BUET)
ECE Building, West Palashi, Dhaka-1000, Bangladesh
Email: atif@cse.buet.ac.bd