

EDUCATION

The Pennsylvania State University	Pennsylvania, USA
<i>Ph.D. Candidate, Computer Science and Engineering</i>	2021 - Present
• Advisor: Dr. Mingfu Shao	
• Research area: Computational Biology	
Bangladesh University of Engineering and Technology (BUET) Dhaka, Bangladesh	
<i>B.S.c. in Computer Science and Engineering</i>	2015 - 2019
• CGPA: 3.90/4.00	

WORK EXPERIENCE

The Pennsylvania State University	Pennsylvania, USA
<i>Graduate Research/Teaching Assistant</i>	2021 - Present
Ahsanullah University of Science and Technology (AUST) Dhaka, Bangladesh	
<i>On study leave, Department of Computer Science and Engineering</i>	2019 - Present
Dhanmondi Tutorial Teacher Dhaka, Bangladesh	
Teacher	2019

PUBLICATIONS

1. Irtesam Mahmud Khan, Xiaofei Carl Zang, Ange Teng, **Tasfia Zahin**, Mingfu Shao. Boosting Transcript Assembly via Delineating Transcript Start and End Sites. *bioRxiv*, 2025.
2. Zhezheng Song*, **Tasfia Zahin***, Xiang Li, Mingfu Shao. Accurate Detection of Tandem Repeats from Error-Prone Sequences with EquiRep. *Genome Research*, 2025.
* Equal Contribution
3. 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
4. **Tasfia Zahin***, Md Hasin Abrar*, Mizzanur Rahman Jewel, Tahrina Tasnim, Md Shamuzzoha Bayzid, Atif Rahman. An alignment-free method for phylogeny estimation using maximum likelihood. *BMC Bioinformatics*, 2025.
* Equal Contribution
5. **Tasfia Zahin**, Qian Shi, Carl Zang, Mingfu Shao. Accurate Assembly of Circular RNAs with TERRACE. *Genome Research*, 2024.
6. **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: L^AT_EX, 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) Mentor-mentee 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

Associate Professor

Department of Computer Science and Engineering
The Pennsylvania State University
W205A Westgate Building
University Park, PA 16802
Email: mxs2589@psu.edu

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