

TASFIA ZAHIN

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<https://tasfiazahin.github.io/>

EDUCATION

The Pennsylvania State University	Pennsylvania, USA
Ph.D. Candidate, Computer Science and Engineering	Aug 2021 - Present
<ul style="list-style-type: none">• Advisor: Dr. Mingfu Shao• Research area: My research interests are in Bioinformatics and Computational Biology. Specifically, I work with short- and long-read RNA-seq data to improve the accuracy and resolution of circular RNA assembly.	
Bangladesh University of Engineering and Technology (BUET)	Dhaka, Bangladesh
BS.c. in Computer Science and Engineering	Feb 2015 - Apr 2019
<ul style="list-style-type: none">• CGPA: 3.90/4.00	

WORK EXPERIENCE

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

PUBLICATIONS

1. Tasfia Zahin, Irtesam Mahmud Khan, Mingfu Shao. Accurate Reconstruction of Circular RNAs from Complex Rolling Circular Long Reads with CircPlex. *bioRxiv*, Nov 2025. <https://doi.org/10.1101/2025.11.21.689841>
2. Zhezheng Song*, Tasfia Zahin*, Xiang Li, Mingfu Shao. Accurate Detection of Tandem Repeats from Error-Prone Sequences with EquiRep. *Genome Research*, December 2025 35: 2714-2721.
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 Computational Molecular Biology (RECOMB 2025). *Lecture Notes in Computer Science*, vol 15647, pp. 390–394. Springer, Cham, 2025.
4. Tasfia Zahin, Qian Shi, Carl Zang, Mingfu Shao. Accurate Assembly of Circular RNAs with TERRACE. *Genome Research*, September 2024 34: 1365-1370.
5. Tasfia Zahin, Qian Shi, Carl Zang, Mingfu Shao. Accurate Assembly of Circular RNAs with TERRACE. Proceedings of 28th International Conference on Computational Molecular Biology (RECOMB 2024). *Lecture Notes in Computer Science*, vol 14758, pp. 444–447. Springer, Cham, 2024.
6. Xiaofei Carl Zang, Tasfia Zahin, Irtesam Mahmud Khan, Qian Shi, Yi Xing, Mingfu Shao. Amaranth: Enhanced Single-Cell Transcript Assembly via Discriminative Modeling of UMI Reads and Internal Reads. *bioRxiv*, Nov 2025. <https://doi.org/10.1101/2025.11.24.690228>
7. Irtesam Mahmud Khan, Xiaofei Carl Zang, Ange Teng, Tasfia Zahin, Mingfu Shao. Boosting Transcript Assembly via Delineating Transcript Start and End Sites. *bioRxiv*, Oct 2025. <https://doi.org/10.1101/2025.10.13.682211>
8. Tasfia Zahin*, Md Hasin Abrar*, Mizanur Rahman Jewel, Tahrina Tasnim, Md Sham-suzzoha Bayzid, Atif Rahman. An alignment-free method for phylogeny estimation using maximum likelihood. *BMC bioinformatics*, 2025 Mar 7;26(1):77.

ACADEMIC SERVICES

- Sub-reviewer of ISMB 2026, RECOMB 2026, RECOMB 2025, WABI 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.

CONFERENCE PARTICIPATION

- Research and poster presenter at RECOMB 2025, Seoul, South Korea.
- Research presenter at RECOMB 2024, Boston, Massachusetts, USA.
- Research presenter at the 2023 Workshop on Emerging Methods for Sequence Analysis (WEMSA 2023) organized by The Pennsylvania State University, Pennsylvania, USA.
- Attendee of ISMB 2022, Madison, Wisconsin, USA.
- Attendee of RECOMB 2020 Virtual Conference.

TEACHING EXPERIENCE

- Teaching assistant, The Pennsylvania State University, Pennsylvania, USA.
 - CMPSC 465 Data Structures and Algorithms, Fall 2021, Fall 2024.
- Instructor, Ahsanullah University of Science and Technology, Dhaka, Bangladesh.
 - CSE 3107 and CSE 3108 Microprocessors, Spring 2019, Fall 2019.
 - CSE 2186 Basic Programming Techniques, Fall 2020, Fall 2019.
 - CSE 1287 and CSE 1288 Computer Programming, Spring 2020.
 - CSE 2146 Introduction to Computer Systems, Spring 2020.

LEADERSHIP AND ENGAGEMENT

- IT support sub-committee member, The 23rd International Conference on Computer and Information Technology (ICCIT) 2020, Ahsanullah University of Science and Technology.
- Executive committee member, Robotics Club, Ahsanullah University of Science and Technology, 2020-2021.
- Mentor, Bangladeshi Women in Computer Science and Engineering (BWCSE) Mentor-mentee program, Bangladesh University of Engineering and Technology, 2020-2021.
- Media and publication secretary, English Medium Buetians' Association (EMBA), Bangladesh University of Engineering and Technology, 2018-2019.
- Adjudicator, BRAC Inter-University Debate Competition 2016.
- Delegate, Bangladesh Youth Leadership Summit 2016.
- Member, Bangladeshi Women in Computer Science and Engineering (BWCSE), Bangladesh University of Engineering and Technology, 2015-2019.
- Member, Debating Club, Bangladesh University of Engineering and Technology, 2015-2017.

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

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