

TASFIA ZAHIN

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

EDUCATION	The Pennsylvania State University <i>Ph.D. Candidate, Computer Science and Engineering</i>	Pennsylvania, USA 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.	
WORK EXPERIENCE	Bangladesh University of Engineering and Technology (BUET) Dhaka, Bangladesh <i>BS.c. in Computer Science and Engineering</i>	2015 - 2019
	<ul style="list-style-type: none">• CGPA: 3.90/4.00	
PUBLICATIONS	The Pennsylvania State University <i>Graduate Research/Teaching Assistant</i>	Pennsylvania, USA 2021 - Present
	Ahsanullah University of Science and Technology (AUST) Dhaka, Bangladesh <i>On study leave, Department of Computer Science and Engineering</i>	2019 - 2021
TECHNICAL SKILLS	Dhanmondi Tutorial <i>Teacher</i>	Dhaka, Bangladesh 2019
	<ol style="list-style-type: none">1. Tasfia Zahin, Irtesam Mahmud Khan, Mingfu Shao. Accurate Reconstruction of Circular RNAs from Complex Rolling Circular Long Reads with CircPlex. <i>bioRxiv</i>, 2025. <i>Under review at ISMB 2026</i>.2. Zhezheng Song*, Tasfia Zahin*, Xiang Li, Mingfu Shao. Accurate Detection of Tandem Repeats from Error-Prone Sequences with EquiRep. <i>Proceedings of 29th International Conference on Research in Computational Molecular Biology (RECOMB 2025)</i>. <i>Genome Research</i>, 2024.3. Tasfia Zahin, Qian Shi, Carl Zang, Mingfu Shao. Accurate Assembly of Circular RNAs with TERRACE. <i>Proceedings of 28th International Conference on Research in Computational Molecular Biology (RECOMB 2024)</i>. <i>Genome Research</i>, 2024.4. 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. <i>bioRxiv</i>, 2025. <i>Under review at ISMB 2026</i>.5. Irtesam Mahmud Khan, Xiaofei Carl Zang, Ange Teng, Tasfia Zahin, Mingfu Shao. Boosting Transcript Assembly via Delineating Transcript Start and End Sites. <i>bioRxiv</i>, 2025. <i>Under review at Genome Biology</i>.6. 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. <i>BMC Bioinformatics</i>, 2025.	

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

- Teaching assistant for CMPSC 465, Fall 2021, The Pennsylvania State University.
- Teaching assistant for CMPSC 465, Fall 2024, The Pennsylvania State University.
- Research and poster presenter at RECOMB 2025.
- Research presenter at RECOMB 2024.
- 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.
- 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

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