

EDUCATION	The Pennsylvania State University	Pennsylvania, USA
	<i>Ph.D. Candidate, Computer Science and Engineering</i> <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. 	2021 - Present
	Bangladesh University of Engineering and Technology (BUET)	Dhaka, Bangladesh
	<i>BS.c. in Computer Science and Engineering</i> <ul style="list-style-type: none"> • CGPA: 3.90/4.00 	2015 - 2019
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	Dhaka, Bangladesh
	<i>Teacher</i>	2019
PUBLICATIONS	<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. Zhezhen 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. 	
TECHNICAL SKILLS	<p>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</p>	

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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