

EDUCATION	<b>The Pennsylvania State University</b>	Pennsylvania, USA
	<i>Ph.D. Candidate, Computer Science and Engineering</i> <ul style="list-style-type: none"> <li>Advisor: Dr. Mingfu Shao</li> <li>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.</li> </ul>	2021 - Present
	<b>Bangladesh University of Engineering and Technology (BUET)</b>	Dhaka, Bangladesh
	<i>BS.c. in Computer Science and Engineering</i> <ul style="list-style-type: none"> <li>CGPA: 3.90/4.00</li> </ul>	2015 - 2019
WORK EXPERIENCE	<b>The Pennsylvania State University</b>	Pennsylvania, USA
	<i>Graduate Research/Teaching Assistant</i>	2021 - Present
	<b>Ahsanullah University of Science and Technology (AUST)</b>	Dhaka, Bangladesh
	<i>On study leave, Department of Computer Science and Engineering</i>	2019 - 2021
	<b>Dhanmondi Tutorial</b>	Dhaka, Bangladesh
	<i>Teacher</i>	2019
PUBLICATIONS	<ol style="list-style-type: none"> <li><b>Tasfia Zahin</b>, 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>.</li> <li>Zhezhen Song*, <b>Tasfia Zahin*</b>, 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.</li> <li><b>Tasfia Zahin</b>, 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.</li> <li>Xiaofei Carl Zang, <b>Tasfia Zahin</b>, 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>.</li> <li>Irtesam Mahmud Khan, Xiaofei Carl Zang, Ange Teng, <b>Tasfia Zahin</b>, Mingfu Shao. Boosting Transcript Assembly via Delineating Transcript Start and End Sites. <i>bioRxiv</i>, 2025. <i>Under review at Genome Biology</i>.</li> <li><b>Tasfia Zahin*</b>, Md Hasin Abrar*, Mizanur Rahman Jewel, Tahrina Tasnim, Md Sham-suzzoha Bayzid, Atif Rahman. An alignment-free method for phylogeny estimation using maximum likelihood. <i>BMC Bioinformatics</i>, 2025.</li> </ol>	
TECHNICAL SKILLS	<b>Languages:</b> C++, C, Python, Java, MATLAB, Assembly (Intel 8086) <b>Scripting Languages:</b> L <sup>A</sup> T <sub>E</sub> X, Bash <b>Genome Browser:</b> Integrative Genome Browser (IGV) <b>Deep Learning Libraries:</b> Keras, Pytorch <b>Database Language:</b> SQL, PL/SQL <b>Hardware:</b> 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

### **Dr. Mingfu Shao**

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### **Dr. Atif Hasan Rahman**

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