Sirazum Munira Tisha

Assistant Professor

Department of Mathematics and Computer Science

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# Professional Preparation

Louisiana State University, Baton Rouge, LA Computer Science Ph.D., May 2023

Louisiana State University, Baton Rouge, LA Computer Science M.Sc., December 2019

Rajshahi University of Engineering & Technology, Bangladesh Computer Science & Engineering B.Sc.(Engg.), December 2014

**Appointments**

Assistant Professor Rollins College Aug 14, 2023 - Present

Graduate Teaching Assistant Louisiana State University Jan 01, 2023 - May 19, 2023

(Instructor in Practice)

Graduate Research Assistant Louisiana State University May 15, 2020 - Dec 31, 2022

Graduate Extern McKinley Senior High School, Sep 03, 2019 - May 22, 2020

Baton Rouge, LA

Graduate Teaching Assistant Louisiana State University Aug 15, 2017 - May 22, 2019

Graduate Research Assistant Louisiana State University Aug 15, 2016 - Aug 14, 2017

# Experiences

* Instructing different Computer Science related courses to undergraduate level.
* Developed an automated grading system using machine learning for high school level CS-for- all course named Introduction to Computational Thinking (ICT). This research is funded by Louisiana Department of Education and NSF CS-for-all grants.
* Served as an Instructor and coordinator for three summer terms local high school teacher training program to prepare themselves to teach ICT course.
* Served as team leader for developing video games in a graduate level course project
* Served as a teaching assistant for courses like Computer Graphics, Video game design, Programming with C/C++, Statistics and Graphs in MATLAB, Computer Science with C++ (labs), Computer Science II majors(labs).
* Developed a multi-modal fusion system by fusing Kinect depth sensor and Thermal camera for 3D human body shape estimation as masters’ theses research work.
* Taught AP Computer Science Principles in a local high school.

# Technical Strengths

* **Languages Proficient:** Python, Java, C++, SQL, Shell Scripting, Prior Experience: C, C#
* **Machine Learning:** WEKA, Scikit-learn (Python)
* **Additional Python Libraries/Math and Stats:** Pandas, NumPy, Pygment, Seaborn, TensorFlow, PyTorch, SciPy, OpenCV, Matplotlib, MATLAB
* **GPU Programming**: NVIDIA CUDA
* **Computer Graphics:** OpenGL, WebGL, Unity, Blender, MeshLab, Meshmixer, InVesalius
* **Web:** XML, JavaScript, HTML, PHP
* **SDLC/Documentation:** LaTex, Overleaf
* **Platforms/ Frameworks:** Windows, UNIX/Linux •
* **Others:** Git

# Publications

• M. Viana, **S. Tisha, Integrating Generative AI in CS Education: Trends, Challenges, and Pedagogical Innovations - An ACM-Based Literature Review,**CCSC 2025 (Accepted)

• Z. Zabir, **S. Tisha, The Role of Virtual Reality in Enhancing Computer Science Education,**SIGCSE 2025 (poster)

• **S. Tisha**, R. Oregon, G. Baumgartner, F. Alegre, J. Moreno, **An Automatic Grading System for a High School-level Computational Thinking Course,**Software Engineering Education for the Next Generation (SEENG@ICSE), 2022

• Tisha, Sirazum Munira, **Thermal-Kinect Fusion Scanning System for Body shape Inpainting and Estimation under Clothing** (2019). *LSU Master's Theses*. 5018. <https://digitalcommons.lsu.edu/gradschool_theses/5018>

# Scholarships, Awards, Training, and Involvements

* **Research grants:**
  + Collaborative Research Fellowship, Rollins College, Summer 2025
  + Grants for AI Course Re-design 2025
  + Grants for AI Integration into Course Assignments 2024-2025
  + SEC Emerging Scholars 2022
* Received $3000 grant. Funded 5 undergrade students for preparing data for autograder project.
* **Scholar:**
  + ACS Teaching and Learning Workshop, 2025
  + SEC Emerging Scholars Career Preparation Workshop, 2022
  + Anita B. Org Grace Hopper Celebration, 2018
* **Travel grants:**
  + SEC Emerging Scholars Travel grant, 2022
  + Sweden-Bangladesh travel grant, 2017
* **Awards:**
  + EECS meritorious award, 2022 Spring EECS Graduate Student Research Symposium at LSU, poster presentation segment.
  + Student of the year award, undergraduate level, 2014
  + Finalist, 3 Minute Thesis Competition, Louisiana State University 2022
* **Review/Judging:**
  + Judge, Louisiana State University Graduate Research Conference, 2023 (Oral and Poster)
  + Judge, 2023 Region VII Science & Engineering Fair (High school Senior Division)
  + Reviewer, poster section, ACM SIGCSE 2023 conference
  + Judge, LSU Discover Undergraduate Research Program 2022
  + Reviewer, poster section, ACM SIGCSE 2024 conference
  + Reviewer, poster section, ACM SIGCSE 2025 conference
  + Reviewer, research paper, ACM SIGCSE 2026 conference
* **Teaching related course:** “Motivating Learners, Introduction to Learning Mindsets**”**
* **Training:** 
  + Faculty Success Training Program (FSP) 2024
  + Inclusive STEM Teaching Training Program 2024
  + Ethics Competency training for Rollins college Faculty 2024
  + Faculty of Color Success training Program (FOC-Connect) 2023-2024.
  + Improv and Comedy Theatre Teacher Training 2023
* **Cultural Coordinator:** Bangladeshi Student Association at LSU (BSA@LSU), 2017-2018
* **Member:** IEEE, ACM, Women in Computer Science (WICS@LSU), Women in Machine Learning (WiML)
* **Volunteer:**
  + Student Volunteer, Automated Software Engineering (ASE) 2021 conference