

Antu Saha

CONTACT INFORMATION	Ph.D. Candidate, Department of Computer Science William & Mary, VA-23185, USA	+1-757-243-3463 asaha02@wm.edu
RESEARCH INTERESTS	Software engineering, software maintenance and evolution, bug triage and resolution, deep learning for software engineering	
EDUCATION	William & Mary , Virginia, USA Ph.D., Computer Science, January 2022 - Present <ul style="list-style-type: none">• Advisor: Dr. Oscar Chaparro• CGPA: 3.96/4.00 Rajshahi University of Engineering & Technology , Rajshahi, Bangladesh B.Sc., Computer Science & Engineering, March 2013 - December 2017 <ul style="list-style-type: none">• 1st class 3rd with honors (CGPA: 3.82/4.0)	
RESEARCH EXPERIENCE	Research Assistant, William & Mary <ul style="list-style-type: none">• Working as a research assistant of Dr. Oscar Chaparro in the SEA lab• Leading three research projects including issue resolution patterns, bug report mapping, and bug report assessment & improvement Graduate Student, William & Mary <ul style="list-style-type: none">• Worked with several professors in different research projects focusing on software engineering, deep learning, & biometric authentication Lecturer, Dhaka University of Engineering & Technology <ul style="list-style-type: none">• Worked as a coauthor in the faculty research group focusing on the improvement of Kohonen self-organizing map clustering algorithm for high-dimensional data sets• Supervised three students in their undergraduate research focusing on deep learning for biometric authentication systems Student, Rajshahi University of Engineering & Technology <ul style="list-style-type: none">• Worked on the undergraduate thesis focusing on iris & retina recognition based multi-modal person authentication system	Summer 2023–Present Spring 2022–Present 2018–2022 2013–2017
PUBLICATIONS	<ol style="list-style-type: none">1. Begum, Momotaz, Bimal Chandra Das, Md Zakir Hossain, Antu Saha, and Khaleda Akther Papry. “An improved Kohonen self-organizing map clustering algorithm for high-dimensional data sets.” <i>Indonesian Journal of Electrical Engineering and Computer Science</i> 24, no. 1 (2021): 600-610.2. Saha, Antu, Joydev Saha, and Barshon Sen. “An expert multi-modal person authentication system based on feature level fusion of iris and retina recognition.” In <i>2019 International Conference on Electrical, Computer and Communication Engineering (ECCE)</i>, pp. 1-5. IEEE, 2019.	
TEACHING EXPERIENCE	Teaching Assistant, William & Mary <ul style="list-style-type: none">• Courses: Data Structures, Software Development, Algorithms• Conducted office hours to supervise students in solving their problems• Graded homework, assignments, projects, and exams and provided feedback• Worked as a proctor during the exams Lecturer, Dhaka University of Engineering & Technology	Spring 2022–23, Fall 22 Dec 2018–Jan 2022

- Courses: Object-Oriented Programming, Structured Programming, Information Systems Analysis, Human-Computer Interaction, Numerical Methods, Machine Learning, and among others
- Conducted theory and lab courses as an instructor and performed course-related activities (e.g., prepare exams, proctor exams, grade exams, etc.)
- Worked as a supervisor to supervise students in undergraduate research
- Worked as a student advisor for the welfare of the students

Lecturer, Military Institute of Science and Technology Jan 2018–Dec 2018

- Courses: Object-Oriented Programming, Structured Programming, Data Structures, Computer Networks, and among others
- Conducted theory and lab courses as an instructor and performed course-related activities (e.g., prepare exams, proctor exams, grade exams, etc.)
- Worked as a student mentor for preparing students for competitive programming
- Conducted various academic and administrative activities

TRAINING

Top-up IT training on Java

- Organization: LICT under Bangladesh Computer Council (BCC)
- Curriculum: OOP, J2SE, JPA , Hibernate, JSP, J2EE, Spring etc

HONORS & AWARDS

- Graduate Research Fellowship, Awarded by Department of Computer Science, William & Mary in Summer 2022 & 2023: For academic excellence.
- Technical Education Scholarship, Awarded by Ministry of Education, Bangladesh 2013 to 2017: For attaining a position in technical education.
- Prime Bank Foundation Scholarship, Awarded by Prime Bank, Bangladesh 2013 to 2017: For academic excellence.
- Govt. Merit Scholarship, Awarded by Ministry of Education, Bangladesh 2010: For attaining Secondary School Examination Scholarship in 2010.
- Govt. Merit Scholarship, Awarded by Ministry of Education, Bangladesh 2007: For attaining Junior Scholarship in 2007.
- Govt. Merit Scholarship, Awarded by Ministry of Education, Bangladesh 2004: For attaining Primary Scholarship in 2004.

SKILLS

- Programming Languages : Python, C, C++, Java, C#, Assembly Language (8086)
- Software Development: Java, C sharp, Android, PHP, Bootstrap, HTML, CSS
- Database Administration: MySQL
- Numerical Analysis and Device Simulator: MATLAB
- Machine Learning: PyTorch
- IDE: IntelliJ IDEA, Visual Studio Code, Android Studio, Eclipse, CLion, Code Blocks
- Presentation and Word Processing: Latex, Microsoft Office, Google Docs Editors

PROFESSIONAL AFFILIATIONS

- Web chair, **W&M CS Symposium for Graduate Studies - 2023**
- Member, **DUET Teachers' Association**
- Member Secretary, Promotion Committee of **DUET CSE FEST - 2019**
- Coordinator, Self-Assessment Report(SAR) of DUET CSE program
- Ex-coordinator, Self-Assessment Report(SAR) of MIST CSE program
- Ex-coordinator, Computer Club of MIST

VOLUNTEERING ACTIVITIES

- Working as a web chair and student volunteer at **W&M CS Symposium for Graduate Studies - 2023**
- Worked as a student volunteer at **W&M CS Symposium for Graduate Studies - 2022**

- Worked as a student volunteer at **Grad Bash - 2023** at **William & Mary**
- Worked as an organizer at **DUET CSE FEST - 2019** held at **Dhaka University of Engineering & Technology, Bangladesh**
- Worked as an organizer at **CYBERCOMP - 2018** at **Military Institute of Science and Technology, Bangladesh**
- Worked as an organizer at **REUNION of Batch 2010** in 2014 at **Madhupur Shahid Smrity Higher Secondary School, Bangladesh**

- OTHER ACTIVITIES
- Working as a **Graduate International Peer Leader**: helping new incoming graduate students in William & Mary
 - Working as an admin of **Let's Touch the Dream** Facebook group: helping undergraduate & prospective students by providing suggestions and guidelines on career, research, and higher studies
 - Participated in **RoboTour & Programming Contest** organized by "IEEE RUET Student Branch" in 2015
 - Solved problems in different online judges like UVA in C and C++

REFERENCES

Dr. Oscar Chaparro
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 Department of Computer Science
 William & Mary
 Williamsburg, VA 23185, USA
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Dr. Kevin Moran
 Assistant Professor
 Department of Computer Science
 George Mason University
 Fairfax, VA 22030, USA
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