Jaydeb Sarker

Ph.D. Candidate in Computer Science, Wayne State University
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Google Scholar
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Research Interest

Software Engineering, Natural Language Processing, Software Developer's Interactions

Education

Wayne State University — Detroit, MI
Ph.D. Candidate in Computer Science, GPA: 3.92/4.0 — *August 2019 – July 2024(Expected)*

Wayne State University — Detroit, MI
Masters in Computer Science, GPA: 3.90/4.0 — *August 2019 – August 2022*

Rajshahi University of Engineering and Technology — Rajshahi, Bangladesh
BSc. in Computer Science and Engineering, CGPA: 3.71/4.0 (Position: 7^{th}/56) — *January 2012 – October 2016*

Experiences

Thomas C Rumble Graduate Fellow — August 2022 – May 2023
Wayne State University — *Detroit, MI*
9 month Ph.D. fellowship for the excellence of Ph.D. work.

Graduate Teaching Assistant — August 2019 – August 2022
Wayne State University — *Detroit, MI*

- Software Engineering / Lab
  [Winter-2021, Summer-21, Winter-22, Summer-22]
- Taught Courses: Problem Solving and Programming (Theory and Laboratory)
  [Fall-19, Winter-20, Summer-20, Fall-20, Summer-21]

Lecturer — January 2017 – July 2019
University of Information Technology and Sciences — *Dhaka, Bangladesh*

- Taught undergraduate programming, data structure and Algorithms courses
- Worked as a mentor for programming contest team

Internship on 5G wireless communication — Sept 2017- Nov 2017
Otto-Von-Guericke-Universität — *Magdeburg, Germany*

- Goal: Beam steering from the antenna using USRPs.
  Outcome: 16- QAM produced the best accuracy using OFDM (Orthogonal Frequency Division Multiplexing).

Publications

1. Jaydeb Sarker. 'who built this crap?' developing a software engineering domain specific toxicity detector. *Student Research Competition on the International Conference on Automated Software Engineering (ASE)*, 2022.

2. Jaydeb Sarker. Identification and mitigation of toxic communications among open source software developers. *Doctoral Symposium on the International Conference on Automated Software Engineering (ASE)*, 2022.

3. Jaydeb Sarker, Asif Kamal Turzo, Ming Dong, and Amiangshu Bosu. Automated identification of toxic code reviews using toxicr. *arXiv preprint arXiv:2202.13056*, 2022 (Major Revision Submitted to ACM Transactions on Software Engineering and Methodology (TOSEM)).

4. Sayma Sultana, Jaydeb Sarker, and Amiangshu Bosu. A rubric to identify misogynistic and sexist texts from software developer communications. In *Proceedings of the 15th ACM/IEEE International Symposium on Empirical Software Engineering and Measurement (ESEM)*, pages 1–6, 2021.

5. Jaydeb Sarker, Asif K. Turzo, and Amiangshu Bosu. A benchmark study of the contemporary toxicity detectors on software engineering interactions. In *Proceedings of the 27th Asia-Pacific Software Engineering Conference*, APSEC'20, page TBD, December 2020.

6. Jaydeb Sarker, Mustain Billah, and Md Al Mamun. Textual question answering for semantic parsing in natural language processing. In *2019 1st International Conference on Advances in Science, Engineering and Robotics Technology (ICASERT)*, pages 1–5. IEEE, 2019.

Honors and Awards

- Thomas C. Rumble University Graduate Fellowship for 2022-23 Academic Year, Wayne State University
- Deutscher Akademischer Austauschdienst (DAAD) scholarship, Germany- 2017
- Technical scholarship in RUET for the outstanding results from 2012 to 2016.

Reviewing/Professional Activities

1. Reviewer of Software Quality Journal 2022
2. Reviewer in MSR 2021 Shadow Program Committee member
3. Additional Reviewers within the ICSE 2021- Tool Demonstrations-track
4. GTA Training Workshop, WSU-2021 (basic classroom management, grading, professional development)

Volunteer Experience

1. Worked as a Student Volunteer in the 44th ICSE-2022, In person Conference at Pittsburg, PA, USA.
2. Student Volunteer in the 36th IEEE/ACM International Conference on Automated Software Engineering (ASE) 2021, Virtual (Original: Melbourne, Australia).
3. Worked as a Student Volunteer in the 43th ICSE-2021, Virtual Conference (Original: Madrid, Spain).

Talks/Presentation

1. Presented paper in APSEC 2020, virtual presentation in available, Link

Projects

Basic Java Instant Messenger | *Java* [Github] Sep 2021 – Dec 2021

- Java application based on GUI and Sockets+Streams where multiple clients can communicate with each other. In this project, I have used the modern software development concepts (Scrum, Sprint, Unit Testing, Static Analysis, Continuous Integration, Dynamic Analysis).

Deep Pyramid LSTM Networks for Toxic Comment Classification
| *Pyhton, Tensorflow* [Github] Jan 2020 – Apr 2020

- I and two of my group members developed a deep learning based model for detecting toxic contents in Software Engineering domain.

City_of_Youtube_Videos | *Java EE (Servlet, jsp, apache tomcat server)* Sep 2019 – Dec 2019

- This is a graduate course project where I worked on some complex Database queries in MySQl and designed the system using Java EE (Servlet, jsp) and apache tomcat server.[Github]

Analytical Problem Solving

- Solved 150+ problems in Leetcode, UVA and LightOj online judges.
- Participated in programming contest in "RUET CSE-2012", participated ACM-ICPC preliminary contest in Dhaka Region-2014.

Leaderships and Extra-Curricular Activities

- Coach of UITS programming contest team in National Collegiate Programming Contest (NCPC).
- Speaker of the seminar on "Higher Studies Abroad for the students of UITS" in 2018.

Certifications

CCNA Routing and Switching. The course includes Introduction to Networks, Routing and Switching Essentials, Scaling Networks and Connecting Networks.

Technical Skills

Skills: Analytical Problem Solving, Algorithms, Agile method in SE, Git
Languages: Java, Python , C, C++, SQL, MATLAB, HTML, CSS
Developer Tools: Jupyter Notebook, Scikit Learn, Keras, Tensorflow, Pytorch
Machine Learning: TClassification, Regression, Clustering, Deep Neural Models, BERT
Certifications: CCNA Routing and Switching

References

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