

Md. Aquib Azmain

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Education

Degree	Institution	Group/Major	Result	Year
Master of Science in Software Engineering	Institute of Information Technology, University of Dhaka	Software Engineering	CGPA 3.58 out of 4.00	2019 to 2020
Bachelor of Science in Software Engineering	Institute of Information Technology, University of Dhaka	Software Engineering	CGPA 3.89 out of 4.00	2015 to 2018
HSC	Government Azizul Haque College, Bogura	Science	GPA 5.00 out of 5.00	2014
SSC	Bogra Cantonment Public School and College, Bogura	Science	GPA 5.00 out of 5.00	2012

Professional Experience

1. **Lecturer**, CSE at Brac University, Bangladesh (January 2023-Present):
 - Courses Taught: Numerical Methods, Discrete Mathematics, System Analysis and Design, Database systems.
 - Responsibilities:
 - Conducting Theory and Lab Classes (Course Load: 12.0-16.5 Credits) of each sections having 38-40 students.
 - Grading Scripts, Setting Up Questions and Invigilating for Exams.
 - Coordinating Courses: Coordinating / Coordinated with the Faculty Members of 10-30 different sections (each having 38-40 students) to conduct the following Courses.
 - Numerical Methods - CSE330 Theory and Lab
 - System Analysis and Design - CSE471 Lab
 - Conducting Administrative Tasks assigned by the Department and the University.
 - Supervising Thesis / Projects of Undergraduate Students.
 - Evaluating and providing feedback to the research works of Undergraduate Thesis groups.
2. **Contractual Lecturer**, CSE at Brac University, Bangladesh (February 2021-January 2023):
 - Conducted both theory and lab classes. Created assignments, quiz and other assessments.
3. **Adjunct faculty**, CSE at Independent University, Bangladesh (September 2021-December 2022):
 - Conducted both theory and lab classes. Created and implemented quizzes, lab assignments and other assessments. Courses Taught: Data Structure, Computer Fundamentals, Object oriented Programming.

4. **Short Course Instructor** at IIT, University of Dhaka (August 2018-January 2021):
 - Provided clear, informative lectures on web programming, web design and smart office.
 - Created and implemented written and oral assessments (Lab exams, presentations).
5. **Software Engineer Intern** at SELISE Rockin' Software, Dhaka (January 2018-June 2018):
 - Engaged in software development utilizing wide range of technological tools.
 - Wrote code on Angular 6 and C#.
6. **Requirement Analyst** at Glitra Bangladesh, Dhaka (July 2017-December 2017):
 - Conducted requirement analysis for a software “Digital Letter” of Department of Military Lands & Cantonments

Awards and Fellowship

- “**ICT Fellowship 2019-20**” for the purpose of Master’s thesis from ICT Division, Bangladesh
- Secured the position of first runners up at “**Cybernauts 2018 Project Showcasing**” By NSUCEC. Link: http://www.iit.du.ac.bd/view_achievements/view_achievements_details/51
- Secured the position of second runners up at “**Technival 2018 Project Showcasing**” by KUET. Link: http://www.iit.du.ac.bd/view_achievements/view_achievements_details/52
- Secured the position of second runners up at “**BUET CSE Fest Inter University Project Show 2018**”. Link: http://www.iit.du.ac.bd/view_achievements/view_achievements_details/53
- **Undergraduate excellence scholarship** and full tuition waiver in the postgraduate study at University of Dhaka, Bangladesh for excellence in Bachelor of Science in Software Engineering completed in 2018.

Publications

1. “**Unveiling Deception: Evaluating NLP's Effectiveness in Identifying Misleading Responses from Large Language Models**”, Md Mahim Muntasir Arin, Fahim Hasan, Aquib Azmain, Muntasir Ahmed Ador, Iffat Ara Nazmin, Tawhid Anwar. 2025 7th International Conference on Natural Language Processing (ICNLP).
2. “**Analyzing software quality and maintainability in object-oriented systems using software metrics**”, Faria Tasnim, Mahdi Islam, Salequzzaman Khan, Farib Md Ferdoush, Fatema Haque, Md Aquib Azmain. 2025 9th International Conference on Management Engineering, Software Engineering and Service Sciences (ICMSS)
3. “**Enhancing Software Quality: Python Code Smell Detection using Machine Learning techniques and Refactoring Long Methods using Extract Method Algorithm**”, Mohammed Sharraf Uddin, Kazi Zunayed Quader Knobo, Jannatul Ferdoshi, Shabab Abdullah, MD Aquib Azmain. Proceedings of the 2024 10th International Conference on Robotics and Artificial Intelligence.
4. “**Automated Repair of Asymmetric Web Pages during Resolution of Mobile Friendly Problems**”, Md. Aquib Azmain, Kishan Kumar Ganguly. The 16th International Conference on Evaluation of Novel Approaches to Software Engineering, ENASE 2021.
5. “**Impact of label noise and efficacy of noise filters in software defect prediction**”, Shihab Shahriar Khan, Md. Aquib Azmain, Nishat Tasnim Niloy, and Ahmedul Kabir. The 32nd International Conference on Software Engineering and Knowledge Engineering, SEKE 2020, USA, pages 347-352.
6. “**On the Evolutionary Properties of Fix Inducing Changes**”, Syed Fatiul Huq (Sujoy), Md. Aquib Azmain, Nadia Nahar and Md. Tawhid, QuASoQ 2020 in conjunction with the 27th Asia-Pacific Software Engineering Conference (APSEC 2020).

Thesis Supervision

- 1.** Detecting Developer Emotions in GitHub Commits Using Large Language Models: Implications for Project Health
Group Members: Zawad Al Akram, Insaniyat Ishan, Mushfiq Zahid, Fahmida Haque Fariha
[Undergraduate Thesis | Summer 2025 | CSE, BRACU]
- 2.** Exploring Developer Patterns and Code Similarities: An In-Depth Study Using Code Stylometry, Developer Profiling, and Clone Detection in Software Projects
Group Members: Apurba Afiat, Taan Gazi Safowan Islam, Sanzida Afrin, Sarker Md Talha, Jumanah Suha Parisa
[Undergraduate Thesis | Summer 2025 | CSE, BRACU]
- 3.** Securing the Creative Code: An Investigation into the Security Aspects of AI-Generated Code
Group Members: Md. Nayeemul Hasan, Shoeb Mahmood, Jarin Islam, Mahbuba Zaman
[Undergraduate Thesis | Summer 2025 | CSE, BRACU]
- 4.** Deep Reinforcement Learning Based Climate-Aware Irrigation Scheduling for Boro Rice Cultivation in Mymensingh, Bangladesh
Group Members: Md. Naimur Rahman, Lamia Saiyara, Nahian Quader Labib, Chowdhury Shadab Aiman
[Undergraduate Thesis | Summer 2025 | CSE, BRACU]
- 5.** Learning Developer Style: A Stylometric Framework for Attribution, Detection and Profiling
Group Members: Sudipta Nandi, Mohammad Sayed Safi Sams, Nabil Al Hami
[Undergraduate Thesis | Summer 2025 | CSE, BRACU]
- 6.** Academic Burnout Detection Using Behavioural Data Analysis
Group Members: Steve D Costa, Abiduddin Afnan, Abrar Zahin, Zannatun Tazree Tisha
[Undergraduate Thesis | Summer 2025 | CSE, BRACU]
- 7.** AI-Assisted Code Generation Tools: A New Frontier in Software Development
Group Members: Utshob Bose, Dipra Kamal, Zaima Mashiat Nabi, Ibtisum Jaman, Tasnia Taslim Hossain
[Undergraduate Thesis | Summer 2025 | CSE, BRACU]
- 8.** Early and Late Fusion Ensemble Methods for Predicting Bug Severity from Bug Report
Group Members: Md. Farhan Farooq, MD. Shahriar Nawshad Nabil
[Undergraduate Thesis | Spring 2025 | CSE, BRACU]
- 9.** An LLM-Based Framework for Automated Python Test Generation and Mutation Testing Evaluation
Group Members: Sadnan Nafis, Abdullah Al Walid, Amatus Subhan Anuja
[Undergraduate Thesis | Spring 2025 | CSE, BRACU]
- 10.** Detecting misleading information in LLMs responses
Group Members: Md Mahim Muntasir Arin, Muntasir Ahmed Ador, Iffat Ara Nazmin, Fahim Hasan, Syed Ashik Mahamud.
[Undergraduate Thesis | Fall 2024 | CSE, BRACU]
- 11.** Developing Usability Heuristics for Bangladeshi E-Commerce Websites: A Desktop and Mobile Focused Approach
Group Members: Namirul Islam, Nayel Zahir, Tahmim Hassan
[Co-supervision | Undergraduate Thesis | Summer 2024 | CSE, BRACU]
- 12.** Unveiling Agricultural Insights: Leveraging Deep Learning for Enhanced Diagnostic Accuracy in Maize Disease Detection with Explainable Artificial Intelligence
Group Members: Basit Hussain, Malika Muradi, Christian Boateng, Eliya Christopher Nandi, Imenagitero Ulysse Tresor
[Co-supervision | Undergraduate Thesis | Summer 2024 | CSE, BRACU]

- 13. Enhancing Software Quality: Python Code Smell Detection using Machine Learning techniques and Refactoring Long Methods using Extract Method Algorithm**

Group Members: Jannatul Ferdoshi, Shabab Abdullah, Kazi Zunayed Quader Knobo, Mohammed Sharraf Uddin

[Undergraduate Thesis | Spring 2024 | CSE, BRACU]

- 14. Analyzing Software Quality and Maintainability in Object-Oriented Systems using Software Metrics**

Group Members: Faria Tasim, Farib Md. Ferdoush, Salequzzaman Khan, Mahdi Islam, Fatema Haque

[Undergraduate Thesis | Summer 2024 | CSE, BRACU]

Research Experience

- **A machine learning-based inference and analysis of crop production based on climate parameters in Bangladesh:** Using standard approaches of machine learning this study provides appropriate prediction models for all the crops considered and infers the numeric effect of various climate factors on the unit production of the crops.
- **Improving symmetric structure during resolution of mobile friendly problems in web pages:** Mobile friendly problem (MFP) causes the low quality of the website visibility and has a potential risk to decrease usability for a mobile user. The solution proposed an automatic repair technique that generates symmetric mobile friendly patches for a web page.
- **On the evolutionary properties of fix inducing changes:** Analyzing Fix-Inducing Changes (developer code that introduce bugs) provides the opportunity to estimate bugs beforehand. This study analyzes the evolution of FICs to visualize patterns associated with the introduction of bugs throughout and within project releases.
- **Noise filters in software defect prediction:** By using a diverse set of classifiers, imbalance-methods and noise filters, this study empirically investigates how the presence of label noise in post-release defect prediction datasets affect performance and evaluates the effectiveness of noise filters in minimizing the adverse effects of noise.
- **Towards the detection and refactoring of message chains:** This study proposes a method of detecting and suggesting the refactoring for Message Chains (a code smell).

Skills and Certification

- **Generative AI Course Completion Certificate** by LinkedIn on LinkedIn Learning. Certificate earned on August 10, 2024. Certificate Link: https://www.linkedin.com/learning/certificates/396f08cda63f2d2995fe783d63b49870867042d1ab321eda6ec2d19f988aaf5c?trk=share_certificate
- **IBM Data Science Professional Certificate** by IBM on Coursera. Certificate earned at November 29, 2020. Certificate Link: <https://coursera.org/share/ded2601302dd0669b44a89fb33cca06>
- **Python Certificate** by HackerRank. Certificate earned at September 21, 2020. Link: <https://www.hackerrank.com/certificates/9b1986c56db8>
- **TensorFlow Developer Professional Certificate** by DeepLearning.AI on Coursera. Earned at October 14, 2020. Link: <https://coursera.org/share/16b8288d4058bff7e67b85033d3ac1f8>
- **Programming skills:** Python, Java, C++, C
- **Web based skills:** Angular, PHP, MySQL, Flask, Javascript

- **Data science skills:** Python, SQL, R, Data Visualization, Machine Learning, Documentation, DBMS
- **Tools:** SourceTree, Jira, SceneBuilder, RStudio, MS Excel, Power BI, IBM Watson, MATLAB
- **Library:** JavaFX, TensorFlow, Keras, PyTorch, Scikit-learn, Pandas, NumPy, Matplotlib

Additional Activities

1. **Member of the judging panel, Hackathon,** IntraHactive 1.0 - 2024, Organized by the BRAC University Computer Club (BUCC). It was held on Monday, November 11, 2024 at Brac University, Dhaka.
2. **Workshop Instructor**, the annual IT Fest and Workshop 2022, organized by the department of Computer Technology, National Institute of Engineering and Technology (NIET)
 - Conducted a workshop on 'Skill development'
3. **Evaluator, Project Showcasing**, TechFest Spring 2024, Organized by the Department of Computer Science and Engineering, Independent University, Bangladesh
 - It was held on April 16, 2024 at Independent University, Bangladesh. 1690 students participated in 11 segments, showcasing 226 projects in robotics, AI, machine learning, etc.
4. **Lab Course Coordinator**, Brac University
 - Coordinated with the Lab Faculty Members of 5-10 different sections & approximately 300 students to conduct the Lab Course of those particular semesters
5. **Thesis Panel Judge**, Brac University
 - Evaluated & provided feedback to the research works of Undergraduate Thesis groups.
6. **Web Designer**, Training Workshop on DevOps 2019, IIT, DU
 - A workshop on DevOps organized by the DSSE (Distributed Systems & Software Engineering) Student Research Group on 3-4 August. I developed the website for this workshop.
7. **Event Organizer**, IIT, DU Industry Academia Collaboration 2017 (with 10 leading companies)
 - Institute of Information Technology (IIT) of the University of Dhaka held its first ever Industry Academia Collaboration Session on 5th August 2017. I was a member of the organizing committee.

References

Available on request.