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):
   o Courses Taught: Numerical Methods, Discrete Mathematics, System Analysis and Design, Database systems.

2. **Contractual Lecturer**, CSE at Brac University, Bangladesh (February 2021-December 2022):
   o Conducted both theory and lab classes. Created assignments, quiz and other assessments.

3. **Adjunct faculty**, CSE at Independent University, Bangladesh (September 2021-December 2022):
   o 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):
   o Provided clear, informative lectures on web programming, web design and smart office.
   o Created and implemented written and oral assessments (Lab exams, presentations).

5. **Software Engineer Intern** at SELISE Rockin' Software, Dhaka (January 2018-June 2018):
   o Engaged in software development utilizing wide range of technological tools.
   o Wrote code on Angular 6 and C#.

6. **Requirement Analyst** at Glitra Bangladesh, Dhaka (July 2017-December 2017):
   o 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. "**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. [PDF]
2. "**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. [PDF]
3. "**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). [PDF]

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

- **IBM Data Science Professional Certificate** by IBM on Coursera. Certificate earned at November 29, 2020. Certificate Link: https://coursera.org/share/ded2601302dd0669b44a89fbd33cca06
- **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:** TensorFlow, Git, Jira, RStudio, MS Excel, Power BI, IBM Watson, MATLAB

Additional Activities

1. **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'

2. **Evaluator, Project Showcasing**, TechFest Spring 2024, Organized by the Department of Computer Science and Engineering, Independent University of Bangladesh
   - It was held on April 16, 2024 at Independent University of Bangladesh. 1690 students participated in 11 segments, showcasing 226 projects in robotics, AI, machine learning, etc.

3. **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

4. **Thesis Panel Judge**, Brac University
   - Evaluated & provided feedback to the research works of Undergraduate Thesis groups.

5. **Web Designer**, Training Workshop on DevOps 2019, IIT, DU
   - A workshop on DevOps has been organized by the DSSE (Distributed Systems & Software Engineering) Student Research Group on 3rd and 4th August. I developed the website for this workshop.

6. **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.