# Foyzul Hassan


CONTACT INFORMATION

Department of Computer Science
University of Texas at San Antonio
North Paseo Building, 1 UTSA Circle
San Antonio, TX 78249 USA
Room No.: NPB 2.220

(210)753-2606
foyzul.hassan@my.utsa.edu
https://foyzulhassan.github.io/
https://www.linkedin.com/in/foyzulhassan/


RESEARCH INTERESTS

Software Build Process, Script Code Analysis, Program Repair and Fault Localization.

EDUCATION

**University of Texas at San Antonio**

PhD Candidate, Computer Science (expected graduation in May 2020)

- Dissertation Topic: Tackling Build Failures in Continuous Integration.
- Advisor: Xiaoyin Wang

**United International University**

MSc in Computer Science & Engineering, 2012

- Dissertation Topic: Neural Network based Context Sensitive Triphone HMM for Bangla ASR.
- Advisor: Muhammad Nurul Huda

**Military Institute of Science and Technology**

BSc in Computer Science & Engineering, 2007

- Dissertation Topic: Learning heuristic estimation for A* search using back propagation neural network.
- Advisor: Chowdhury Mofizur Rahman

PUBLICATIONS

**Foyzul Hassan**, Rodney Rodriguez, Xiaoyin Wang, *RUDSEA: recommending updates of Dockerfiles via software environment analysis,*[New Idea Paper], Proceedings of the 33rd IEEE/ACM International Conference on Automated Software Engineering (ASE 2018), Pages 796-801.

**Foyzul Hassan**, Xiaoyin Wang, *HireBuild: an automatic approach to history-driven repair of build scripts,* Proceedings of the 40th International Conference on Software Engineering (ICSE 2018), Pages 1078-1089.

**Foyzul Hassan**, Xiaoyin Wang, *Change-aware build prediction model for stall avoidance in continuous integration,*[Short Paper] Proceedings of the 11th ACM/IEEE International Symposium on Empirical Software Engineering and Measurement (ESEM 2017), Pages 157-162.

**Foyzul Hassan**, Shaikh Mostafa, Edmund SL Lam, Xiaoyin Wang, *Automatic building of java projects in software repositories: A study on feasibility and challenges,* Proceedings of the 11th ACM/IEEE International Symposium on Empirical Software Engineering and Measurement (ESEM 2017), Pages 38-47.

**Foyzul Hassan**, Xiaoyin Wang, *Mining readme files to support automatic building of java projects in software repositories,*[Poster Track] Proceedings of the 39th International Conference on Software Engineering Companion (ICSE 2017), Pages 277-279.

**Foyzul Hassan**, Mohammed Rokibul Alam Kotwal, Mohammad Nurul Huda, *Bangla Phonetic Feature Table Construction for Automatic Speech Recognition*, Proceedings of 16th Int'l Conf. Computer and Information Technology(ICCIT 2013), Pages 51-55.

Mohammed Rokibul Alam Kotwal, **Foyzul Hassan**, Mohammad Nurul Huda, *Speech Feature Evaluation for Bangla Automatic Speech Recognition,* [Book Chapter], Technical Challenges and Design Issues in Bangla Language Processing, IGI Global, Pages 169-208.

**Foyzul Hassan**, Mohammad Saiful Alam Khan, Mohammed Rokibul Alam Kotwal, Mohammad Nurul Huda, *Gender independent Bangla automatic speech recognition*, Proceedings of International Conference on Informatics, Electronics & Vision (ICIEV 2012), Pages 144-148.

**Foyzul Hassan**, Mohammed Rokibul Alam Kotwal, Mohammad Nurul Huda, *MLN-based Bangla ASR using context sensitive triphone HMM*, International Journal of Speech Technology(2011), Pages 183-191.

**Foyzul Hassan**, Mohammed Rokibul Alam Kotwal, Mohammad Mahedi Hasan, Ghulam Muhammad, Mohammad Nurul Huda, *Inhibition/Enhancement Network Based ASR using Multiple DPF Extractors.*, Journal of Multimedia(2011), Pages 395-403.

**In Submission**

**Foyzul Hassan**, Xiaoyin Wang, *Name of the paper redacted to comply with the double-blind review process,* under review for the 41th International Conference on Software Engineering (ICSE 2019).

Lingchao Chen, **Foyzul Hassan**, Xiaoyin Wang, Lingming Zhang, *Name of the paper redacted to comply with the double-blind review process,* under review for the 41th International Conference on Software Engineering (ICSE 2019).

## Conference Talks

*HireBuild: an automatic approach to history-driven repair of build scripts*, at the 40th International Conference on Software Engineering (ICSE 2018), Gothenburg, Sweden.

*Automatic building of java projects in software repositories: A study on feasibility and challenges*, at the 11th ACM/IEEE International Symposium on Empirical Software Engineering and Measurement (ESEM 2017), Toronto, Canada.

*Change-aware build prediction model for stall avoidance in continuous integration*, at the 11th ACM/IEEE International Symposium on Empirical Software Engineering and Measurement (ESEM 2017), Toronto, Canada.

*An Inhibition/Enhancement network for noise robust ASR*, at the 13th International Conference on Computer and Information Technology(ICCIT 2010), Dhaka, Bangladesh.

## Other Talks

*Build Prediction Model in Continuous Integration to Avoid Integration Delay*, Graduate Research Seminar, University of Texas at San Antonio. (March 2017)

## Teaching & Mentoring Experience

| | |
|---|---|
| Fall 2018 | Instructor of Record, CS 1063: Introduction to Programming I. Class Size: 75. Prepared class lectures, lab practices, quizzes, assignments, exams, supervised teaching assistants and published student grades. |
| Summer 2018 | Teaching Assistant, Software Validation and Quality Assurance. |
| Spring 2018 | Teaching Assistant, Software Engineering. |
| Fall 2012 | Research Mentor for Masters Research Project on Bangla Speech Recognition. Student Names: M Asfak-Ur-Rahman, KN Babi. |
| Spring 2012 | Research Mentor for Masters Research Project on Bangla Speech Recognition. Student Name: Mohammad Nasiruddin. |

## Research Experience

2015 - Till Date — Research Assistant.

Advisor: Xiaoyin Wang, Department of Computer Science, University of Texas at San Antonio.

- Software Build Automation using Natural Language Processing (NLP) techniques.
- Distributed Software Build.
- Automatic Software Build Fault Localization and Repair.
- Build Time Optimization.
- Continuous Integration Performance Optimization.

## Professional Experience

2014–2015 — QA Manager.
Kona Software Lab Ltd, Dhaka, Bangladesh.

- R&D on Cryptographic and EMV specifications for Smart Card.
- Design and develop test bed for PKCS#11 library.
- Designed automatic regression testing framework for KonaPay.
- Established code review process for the development team.
- Define test strategy for cryptographic library and payment systems based on Smart Card and NFC Ecosystem.
- Release and Configuration Management.
- Manage software quality assurance team of 12 members.

2008–2014 — QA Lead, QA Engineer.
Enosis Solutions, Dhaka, Bangladesh.

- Review and develop MFC/C++ COM based Plug-in-Application to test Visual-Environment engineering simulation project.
- Develop and maintain testing aid tool such memory analysis tool, Screen capture tool and different application sync tool.
- Design and maintain GUI test automation framework built on Python, Sikuli, RobotFramework and Maven.

## Honors and Awards

| | |
|---|---|
| 2018 | NSF Travel Award for ICSE, NSF |
| 2018 | Graduate Student Professional Development Award, UTSA |
| 2017 | ESEM Travel Grant, UTSA |
| 2017 | Alvarez Grad Fellowship, UTSA |
| 2015 | Full Tuition Award, UTSA |
| 2012 | Summa Cum Laude, UIU |
| 2011 | MSCSE Merit Award, UIU |

## Graduate Coursework

- ❑ Analysis of Algorithms
- ❑ Introduction to Data Science
- ❑ Operating Systems
- ❑ Computer Architecture
- ❑ Programming Language & Compilers
- ❑ Machine Learning
- ❑ Advanced Artificial Intelligence
- ❑ Software Engineering
- ❑ Software Testing and Quality
- ❑ Advanced OOP
- ❑ Speech Recognition

## Technical Skills

| | |
|---|---|
| Programming Languages | Java, C/C++, C#.NET, MFC, Python |
| Scripting Languages | Shell Script, Perl |
| Mathematical Tools | Matlab, NumPy |
| DataBase | Oracle 9i, MySql, MSSQL |
| Tools & Framework | J2EE 2.0, Spring, Hibernate, Weka, OpenNLP, Pandas, QTP, LoadRunner, JMeter, Selenium, Valgrind, JIRA, Redmine, SVN, Git |

## Services

- Student volunteer, ICSE 2018
- SubReviewer, Research track, SEKE 2017
- SubReviewer, Research track, SEKE 2016

## Other Activities

- President of Bangladesh Student Association(BSA) UTSA during 2016-2017.
- Mentor San Antonio Youth Code Jam 2015.
- Member, IEEE, ACM, ACM SIGSOFT.

## References

Available on request.