

Iftekhhar Ahmed

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RESERACH INTERESTS

Software engineering in general and combining software testing, analysis and machine learning to come up with better tools and techniques in particular.

EDUCATION

Graduation: June 2018 *Ph.D.*, Computer Science, Oregon State University, Corvallis, OR
(Expected)

April 2007 *B.S.*, Computer Science and Engineering, Shah Jalal University of Science and Technology, Bangladesh

INTERNATIONAL AWARDS AND HONORS

Fellowship	IBM Ph.D. Fellowship	2016-2017
	IBM Ph.D. Fellowship	2017-2018

CONFERENCE PAPERS

- [C.14] **Iftekhhar Ahmed**, Caius Brindescu, Umme Ayda Mannan, Anita Sarma and Carlos Jensen, “An Empirical Examination of Code Smells and Their Impact on Collaborative Work.” In *11th ACM/IEEE International Symposium on Empirical Software Engineering and Measurement*. [ESEM 2017]. [Acceptance rate: 19%]
- [C.13] **Iftekhhar Ahmed**, Darren Forrest and Carlos Jensen. “A Case Study of Motivations for Corporate Contribution to FOSS.” In *IEEE Symposium on Visual Languages and Human-Centric Computing*. [VL/HCC 2017]. [Acceptance rate: 29%]
- [C.12] **Iftekhhar Ahmed**, Rahul Gopinath, Caius Brindescu, Alex Groce and Carlos Jensen. “Can Testedness be Effectively Measured?” In *24th ACM SIGSOFT International Symposium on the Foundations of Software Engineering* (pp. 547-558). [FSE 2016]. [Acceptance rate: 20%]
- [C.11] Rahul Gopinath, Mohammad Amin Alipour, **Iftekhhar Ahmed**, Carlos Jensen and Alex Groce. “On the limits of mutation reduction strategies.” In *38th ACM/IEEE International Conference on Software Engineering* (pp. 511-522). [ICSE 2016]. [Acceptance rate: 19%]
- [C.10] Umme Ayda Mannan, **Iftekhhar Ahmed**, Rana Almurshed, Danny Dig and Carlos Jensen. “Understanding Code Smells in Android Applications.” In *IEEE/ACM International Conference on Mobile Software Engineering and Systems* (pp. 225-234). [MOBILESOFT 2016]. [Acceptance rate: 33%]
- [C.9] **Iftekhhar Ahmed**, Umme Ayda Mannan, Rahul Gopinath, and Carlos Jensen. “An Empirical Study of Design Degradation: How Software Projects Get Worse Over Time.” In *9th ACM/IEEE International Symposium on Empirical Software Engineering and Measurement* (pp. 1-10). [ESEM 2015]. [Acceptance rate: 25%]
- [C.8] Alex Groce, **Iftekhhar Ahmed**, Carlos Jensen and Paul E. McKenney. “How Verified is My Code? Falsification-Driven Verification.” In *30th ACM/IEEE International Conference on Automated Software Engineering* (pp. 737-748). [ASE 2015]. [Acceptance rate: 19%]
- [C.7] Rahul Gopinath, Mohammad Amin Alipour, **Iftekhhar Ahmed**, Carlos Jensen and Alex Groce. “How Hard Does Mutation Analysis Have to Be, Anyway?” In *26th IEEE International Symposium on Software Reliability Engineering* (pp. 216-227). [ISSRE 2015]. [Acceptance rate: 19%]

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- [C.6] **Iftekhar Ahmed**, Nitin Mohan and Carlos Jensen. “The Impact of Automatic Crash Reports on Bug Triaging and Development in Mozilla.” In *ACM International Symposium on Open Collaboration* (pp. 1-8). [OPENSYM 2014]. [Acceptance rate: 45%]
- [C.5] **Iftekhar Ahmed**, Soroush Ghorashi and Carlos Jensen. “An Exploration of Code Quality in FOSS Projects.” In *10th IFIP WG 2.13 International Conference on Open Source Systems* (pp. 181-190). Springer Berlin Heidelberg. [OSS 2014]. [Acceptance rate: 25%]

JOURNAL ARTICLES

- [J.4] Rahul Gopinath, **Iftekhar Ahmed**, Mohammad Amin Alipour, Carlos Jensen and Alex Groce. “Mutation Reduction Strategies Considered Harmful” In *IEEE Transactions on Reliability*, May 2017. [TS 2017].
- [J.3] Rahul Gopinath, **Iftekhar Ahmed**, Mohammad Amin Alipour, Carlos Jensen and Alex Groce. “Does Choice of Mutation Tool Matter?” In *Software Quality Journal*, 1-50, May 2016. [SQJ 2016].

PEER REVIEWED WORKSHOP PAPERS

- [W.2] **Iftekhar Ahmed**, Carlos Jensen, Alex Groce and Paul E. McKenney. “Applying Mutation Analysis On Kernel Test Suites: An Experience Report.” In *International Conference on Software Testing, Verification and Validation Workshop on Mutation Analysis (ICSTW)*. [MUTATION 2017]
- [W.1] Rahul Gopinath, Mohammad Amin Alipour, **Iftekhar Ahmed**, Carlos Jensen, and Alex Groce. “Measuring Effectiveness of Mutant Sets.” In *International Conference on Software Testing, Verification and Validation Workshop on Mutation Analysis (ICSTW)*. [MUTATION 2016]

TECHNICAL REPORTS

- [TR.2] Rahul Gopinath, **Iftekhar Ahmed**, Mohammad Amin Alipour, Carlos Jensen, Alex Groce. “Does Choice of Mutation Tool Matter?” *Technical Report, School of Engineering and Computer Science, Oregon State University*, October 2015.
- [TR.1] Rahul Gopinath, Mohammad Amin Alipour, **Iftekhar Ahmed**, Carlos Jensen, Alex Groce. “An Empirical Comparison of Mutant Selection Approaches.” *Technical Report, School of Engineering and Computer Science, Oregon State University*, April 2014.

TEACHING

Instructor Oregon State University	<ul style="list-style-type: none"> • CS 275- Introduction to Databases (Summer-2012). • CS 361- Software Engineering (Winter-2014 to Spring-2016). • CS 362- Applied Software Engineering (Summer 2015). 	09/2014-06/2016
Teaching Assistant Oregon State University	<ul style="list-style-type: none"> • CS 440- Database Management Systems. • CS 275- Introduction to Databases. • CS 361- Software Engineering. • CS 362- Applied Software Engineering. 	09/2011-06/2014

EMPLOYMENT

Senior Executive Operations/Technology, Grameenphone Ltd. Dhaka, Bangladesh	Managed a team of 5 developers and developed the first distributed mobile Commerce Ticketing solution in Bangladesh.	05/2008-08/2011
System Engineer, IT Operations, Grameenphone Ltd. Dhaka, Bangladesh	Developed Issue tracking system for efficient support service for IT helpdesk engineers. Design and develop processes for increasing internal customer satisfaction.	06/2007-05/2008

STUDENT MENTORING (EXTERNAL)

Anthong Zhou, Jiayi Lu Fall 2016 to
ongoing
Undergraduate at University of Tulsa.
Project: Identifying the effect of learning on code and response quality by examining cross
platform activity

PROFESSIONAL SERVICE

Reviewer, IEEE Transactions on Reliability 2017
Reviewer, Software Testing, Verification and Reliability Journal 2017
Reviewer, IEEE/ACM International Conference on Automated Software Engineering (ASE) 2017
Reviewer, IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC) 2017

INVITED TALKS

How to apply mutation testing to the RCU for fun and profit: A progress report. November 2016
Linux plumbers conference. Flagship conference of Linux kernel developers with more than 500
attendees.

How to apply mutation testing to the RCU for fun and profit. September 2015
Linux plumbers conference. Flagship conference of Linux kernel developers with more than 500
attendees.

REFERENCES

Carlos Jensen
Associate Dean of Undergraduate Programs and Associate Professor of Computer Science
Oregon State University

Alex Groce
Associate Professor of School of Informatics, Computing, and Cyber Systems
Northern Arizona University

Anita Sarma
Associate Professor of Computer Science
Oregon State University

Paul E. McKenney
Distinguished Engineer at IBM Linux Technology Center