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| **Mohammad Rezwanul Huq**  Curriculum Vitae | | | | | | | | |
| Affiliation | Assistant Professor,  Computer Science & Engineering Department,  Islamic University of Technology (IUT),  Board Bazar, Gazipur 1704,  Bangladesh.  &  PhD Candidate  Database Group,  University of Twente,  7522 NB, Enschede,  The Netherlands. | | | Home Address  Postal Address  Email  Cell Phone | | | 19/D Monipuri Para,  Tejgaon, Dhaka 1215,  Bangladesh.  Assistant Professor,  Computer Science & Engineering Department,  Islamic University of Technology (IUT),  Board Bazar, Gazipur 1704,  Bangladesh.  mrhuq@iut-dhaka.edu  m.r.huq@utwente.nl  md.rezwan.huq@gmail.com  (880) 1729648344 | |
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| **Profile Summary**  Very recently, I have submitted my PhD dissertation to the graduation committee at the University of Twente, The Netherlands. The title of my PhD dissertation is “Inference-based Framework Managing Data Provenance”. I am expecting to defend my PhD dissertation on November 01, 2013. Currently, I am employed as an Assistant Professor, Computer Science & Engineering Department, Islamic University of Technology (IUT), Bangladesh. I earned my Master degree from Kyung Hee University, South Korea in the year 2008 and completed my Bachelor from Islamic University of Technology (IUT), Bangladesh in 2004. I am looking for research opportunities in advanced topics of Database and related disciplines. | | | | | | | | |
| **Research Interest** | | | | | | | | |
| Areas: Data Provenance, Workflows, Database Technology, Big Data, Semantic Web.  **Recent Research (PhD Topic)**  Researchers use both sensor data (streaming) and manually sampled data (static) in scientific programming. However, validating the model requires provenance data that refers to the derivation history of processed data at a finer level of granularity. Storage and retrieval of fine-grained data provenance is challenging in both streaming and static environments. In a streaming environment, the same data point might be referenced several times due to its contribution to several output data points. Therefore, provenance data becomes a multiple of actual sensor data and traditional solutions are not scalable in terms of storage requirement. In a static environment, documenting provenance data requires a lot of effort since it must be done on a case by case basis. To address these challenges, **we have proposed an inference-based framework to manage data provenance in scientific applications at reduced costs in terms of time, training and storage**. | | | | | | | | |
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| **List of Selected Publications** | | | | | | | | |
| 1. Huq, M.R. and Apers, P.M.G. and Wombacher, A. (2013) ***An Inference-based Framework to Manage Data Provenance in Geoscience Applications.***In: Special issue on Geoscience Data Provenance, IEEE Transaction on Geoscience and Remote Sensing (IEEE TGRS), impact factor: 2.89. (In Press) [Manuscript Submitted: Sep 2012, Revised: Dec 2012, Accepted: January 2013] 2. Huq, M.R. and Apers, P.M.G. and Wombacher, A. (2013) ***ProvenanceCurious: A Tool to Infer Data Provenance from Scripts.*** In: 16th International Conference on Extending Database Technology (EDBT 2013), 18-22 March 2013, Genoa, Italy. 3. Wombacher, A. and Huq, M.R. (2013) ***Towards Automatic Capturing of Manual Data Processing Provenance.*** In: Post-proceedings of the 2nd International Symposium on Data-Driven Process, Discovery and Analysis (SIMPDA 2012), 18-20 June 2012, Italy. (will appear in Lecture Notes in Business Information Processing) 4. Huq, M.R. and Apers, P.M.G. and Wombacher, A. (2012) ***From Scripts towards Provenance Inference.*** In: 8th IEEE International Conference on e-Science (e-Science 2012), 08-12 Oct 2012, Chicago, USA. pp. 1-8. IEEE Computer Society. ISBN 978-1-4673-4467-8 5. Huq, M.R. and Apers, P.M.G. and Wombacher, A. (2012) ***Probabilistic Inference of Fine-grained Data Provenance.***In: 23rd International Conference on Database and Expert Systems Applications (DEXA 2012), 02-07 Sep 2012, Vienna, Austria. pp. 296-310. Lecture Notes in Computer Science 7446. Springer-Verlag Berlin Heidelberg. ISBN 978-3-642-32599-1 6. Huq, M.R. and Apers, P.M.G. and Wombacher, A. (2012) ***Fine-Grained Provenance Inference for a Large Processing Chain with Non-materialized Intermediate Views.*** In: Proceedings of the 24th International Conference of Scientific and Statistical Database Management (SSDBM 2012), 25-27 June 2012, Chania, Greece. pp. 397-405. Lecture Notes in Computer Science 7338. Springer Verlag. ISBN 978-3-642-31234-2 7. Huq, M.R. and Wombacher, A. and Apers, P.M.G. (2011) ***Adaptive Inference of Fine-grained Data Provenance to Achieve High Accuracy at Lower Storage Costs.*** In: 7th IEEE International Conference on E-Science (e-Science 2011), 05-08 Dec 2011, Stockholm, Sweden. pp. 202-209. IEEE Computer Society. ISBN 978-1-4577-2163-2 8. Huq, M.R. and Wombacher, A. and Apers, P.M.G. (2011) ***Inferring Fine-Grained Data Provenance in Stream Data Processing: Reduced Storage Cost, High Accuracy.*** In: 22nd International Conference on Database and Expert Systems Applications (DEXA 2011), 29 Aug - 02 Sep 2011, Toulouse, France. pp. 118-127. Lecture Notes in Computer Science 6861. Springer Verlag. ISSN 0302-9743 ISBN 978-3-642-23090-5 9. Huq, M.R. and Wombacher, A. and Apers, P.M.G. (2010) ***Facilitating Fine Grained Data Provenance using Temporal Data Model.*** In: Proceedings of the Seventh International Workshop on Data Management for Sensor Networks, DMSN 2010, 13 Sep 2010, Singapore. pp. 8-13. ACM. ISBN 978-1-4503-0416-0 10. Huq, M.R. and Wombacher, A. and Apers, P.M.G. (2010) ***Identifying the Challenges for Optimizing the Process to Achieve Reproducible Results in E-science Applications.*** In: Proceedings of the 3rd Workshop on Ph.D. Students in Information and Knowledge Management, PIKM 2010, 30 Oct 2010, Toronto, Canada. pp. 75-78. ACM. ISBN 978-1-4503-0385-9 | | | | | | | | |
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| **Ph.D Dissertation** | | | | | | | | |
| ***Inference-based Framework Managing Data Provenance*** under the supervision of *Prof. Dr. P. M.G. Apers* and *Dr. A. Womabacher*, Database Group, University of Twente, The Netherlands. | | | | | | | | |
| **Master Thesis** | | | | | | | | |
| ***File Sharing and Adaptation Framework in Advanced Collaborating Environment*** under the supervision of*Prof. Dr. Young-Koo Lee***,** Computer EngineeringDept., Kyung Hee University, South Korea. | | | | | | | | |
| **Bachelor Thesis** | | | | | | | | |
| ***Design and Development of a Software Level (loosely coupled) Ubiquitous Computing Grid*** under the supervision of*Prof. Dr. M. A. Mottalib***,** Computer Science and EngineeringDept., Islamic University of Technology, Bangladesh. | | | | | | | | |
| **Academic Background** | | | | | | | | |
| *Name of the Degree* | | | *Institution* | | *Date of Completion* | | | *CGPA/*  *Marks* |
| Doctor of Philosophy | | | University of Twente,  The Netherlands | | November 01, 2013 (expected) | | | **-** |
| Master of Computer Engineering | | | Kyung Hee University,  South Korea | | February, 2008 | | | **4.21 out of 4.30** |
| B.Sc. in Computer Science & Information Technology | | | Islamic University of Technology, Bangladesh | | October, 2004 | | | **4.87 out of 5.00** |
| Higher Secondary Certificate (HSC) [12th Grade] | | | Barisal Cadet College, Barisal, Bangladesh | | August, 2000 | | | **959**  ***(1st in Jessore Board)*** |
| Secondary School Certificate (SSC) [10th Grade] | | | Barisal Cadet College, Barisal, Bangladesh | | July, 1998 | | | **940**  ***(3rd in Jessore Board)*** |
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| **Job Experience** | | | | | | | | |
| *Employer* | | | *Designation* | | *Time Period* | | | |
| Islamic University of Technology, Bangladesh | | | Assistant Professor,  CSE Dept. | | July 2013 – Date | | | |
| University of Twente, Netherlands | | | Promovendus  (PhD Researcher) | | June 2009 – July 2013 | | | |
| Islamic University of Technology, Bangladesh | | | Assistant Professor,  CSE Dept. | | February 2009 – May 2009 | | | |
| Lecturer,  CSE Dept. | | December 2004 – February 2009 | | | |
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| **Computer Skills** | | | | | | | | |
| *Operating Environment:* Windows, Linux  *Word Processing and others:* Microsoft Office Suite, OpenOffice, Latex  *Programming Expertise:* Java, C, C++, Python, PHP  *Database Expertise:* MySQL, PostGRESQL, Oracle, PL/SQL  *Simulating Environment:* MATLAB | | | | | | | | |
| **Honors & Awards** | | | | | | | | |
| 1. PhD Researcher Position sponsored by University of Twente, The Netherlands from June 2009 to May 2013. 2. Korean Government IT Scholarship (ITSP Program) from March 2006 to February 2008. Value of Scholarship: 10,000 USD per year (Approx.) 3. Kyung Hee University President Scholarship from March 2006 to February 2008. Value of Scholarship: covers Tuition Fee (Approx. 11,000 USD per year) 4. Islamic University of Technology Full Free Studentship from January 2001 to October 2004. Value of Scholarship: covers Tuition Fee (Approx. 4,500 USD for 4-year) 5. Bangladesh Government Scholarship for Academic Excellence from Jan 1999 to Dec 2004. | | | | | | | | |
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| **References** | | | | | | | | |
| *Prof. Peter M. G. Apers*  Database Group,  University of Twente,  The Netherlands  E-mail: p.m.g.apers@utwente.nl | | *Dr. Andreas Wombacher*  Database Group,  University of Twente,  The Netherlands  E-mail: a.wombacher@utwente.nl | | | | *Prof. Dr. M. A. Mottalib*  Head, CSE Dept.,  Islamic University of Technology, Gazipur, Bangladesh  E-mail:  mottalib@iut-dhaka.edu | | |