

CURRICULUM VITAE

Sheikh Rabiul Islam

Ph.D. Student, Knowledge Discovery Lab

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EDUCATION

- **Ph.D.** (in progress) in Computer Science, *Tennessee Tech University, TN, USA.* 2015 -
Selected coursework: Data Mining, Big Data, Anomaly and Intrusion Detection, Intelligent Information Systems, Learning Theory, and Parallel Programming. Spring,2020
- **MS** in Computer Science, GPA 3.89, *Tennessee Tech University, TN, USA.* 2015-2018
- **BSc** in Computer Science, GPA 3.84, *Islamic University of Technology, Bangladesh.* 2007-2010

RESEARCH INTERESTS

- Data Mining and Big Data Analysis
- Predictive Modeling in Finance and Cyber Security
- Hierarchical and Longitudinal Data Analysis
- Anomaly or Fraud Detection
- Text Mining

TOOLS & RELATED SKILLS

- *Programming:* Python, Java, C++, PHP, MPI, OpenMP, CUDA, Javascript, and R.
- *Data Science:* Proficient in Scikit-learn, NLTK, Pandas, and Flask; Familiar with Tensorflow, Keras, Caffe, D3.js, Highchart, Matlab, and Weka.
- *Database:* Oracle, MySql, PostgreSQL, and Sqlite3.
- *Certification & Training:*
 - High-Performance Computing Workshop at ORNL
 - Oracle Database SQL Certified Expert (2013)
 - Red Hat Certified Engineer (RHCE) training course at Base Ltd

EXPERIENCE

- *Graduate Research Assistant*, Tennessee Tech University: Currently working towards my dissertation on an efficient predictive modeling technique for hierarchical and longitudinal data. Possible use cases are in financial (e.g., credit risk) and cyber security (e.g., log analysis) domain. 2018-present
- *Advanced Short-Term Research Intern*, Oak Ridge National Laboratory (ORNL), USA: Worked on an automated and generalized malware detection technique from host logs. Summer,2018
- *Graduate Teaching Assistant*, Tennessee Tech University: Worked on different research and software development project. Also, instructed some undergraduate labs (C++, Database). 2015-2018
- Worked independently and collaboratively in multiple software development projects during my four years of fulltime job in two different telecommunication company in Bangladesh. 2011-2015

AWARD

- Ivanhoe Fellowship 2017

PUBLICATIONS

2018

- **Sheikh Rabiul Islam**, Sheikh Khaled Ghafoor, and William Eberle, "Mining Illegal Insider Trading of Stocks: A Proactive Approach", *IEEE Big Data*, 2018. Conference Paper
- Md Mosharaf Hossain, Thomas M. Hines, **Sheikh Rabiul Islam**, Sheikh K. Ghafoor, and Ramakrishnan Kannan, "A Flexible-blocking Based Approach for Performance Tuning of Matrix Multiplication Routines for Large Matrices with Edge Cases", *The 2nd Workshop on Benchmarking, Performance Tuning and Optimization for Big Data Applications (BPOD), IEEE Big Data*, 2018. Conference Paper
- **Sheikh Rabiul Islam**, William Eberle, and Sheikh Khaled Ghafoor, "Credit Default Mining Using Combined Machine Learning and Heuristic Approach", *14th Int. Conference on Data Science (ICDATA'18)*, 2018. Conference Paper
- **Sheikh Rabiul Islam**, "An Efficient Technique for Mining Bad Credit Accounts from Both OLAP and OLTP", *ProQuest Dissertations Publishing*, 2018. 10787567. Masters Dissertation
- Tigstu Dullo, Sudershan Gangrade, Ryan Marshall, **Sheikh R. Islam**, Sheikh Ghafoor, ShihChieh Kao, and Alfred J. Kalyanapu, "The Vulnerability of Critical Energy Infrastructures to Climate Change induced Flooding: A Case Study for the Conasauga River basin", *27th Tennessee Water Resources Symposium*, 2018. Poster/Abstract

2017

- **Sheikh Rabiul Islam**, William Eberle, and Sheikh Khaled Ghafoor, "Mining Bad Credit Card Accounts from OLAP and OLTP", *ACM International Conference on Compute and Data Analysis (ICCD'A'17)*, 2017. Conference Paper
- AJ Kalyanapu, TT Dullo, S Gangrade, SC Kao, R Marshall, **SR Islam**, and SK Ghafoor, "Hurricane Harvey Riverine Flooding: Part 1-Reconstruction of Hurricane Harvey Flooding for Harris County, TX using a GPU-accelerated 2D flood model for post-flood hazard analysis", *American Geophysical Union (AGU) Fall Meeting*, 2017. Poster/Abstract
- Tigstu TSIGE Dullo, Sudershan Gangrade, Ryan Marshall, **Sheikh R Islam**, Sheikh K Ghafoor, Shih-Chieh Kao, and Alfred J Kalyanapu, "A large-scale simulation of climate change effects on flood regime-A case study for the Alabama-Coosa-Tallapoosa River Basin", *American Geophysical Union (AGU) Fall Meeting*, 2017. Poster/Abstract

2016

- TT Dullo, AJ Kalyanapu, S Gangrade, R Marshall, **SR Islam**, SK Ghafoor, SC Kao, and BL Preston, "Development of an Integrated DHSVM-Flood2D-GPU modeling framework - A Case Study for the Alabama-Coosa-Tallapoosa River Basin", *American Geophysical Union (AGU) Fall Meeting*, 2016. Poster/Abstract

2012

- Tanzeem Bin Noor, Md Rounok Salehin, **Sheikh Rabiul Islam**, "A clustering scheme for peer-to-peer file searching in mobile ad hoc networks", *International Journal of Advanced Research in Computer and Communication Engineering*, 2012. Journal Paper

PROFESSIONAL SERVICES

- President, Computer Science Graduate Club 2018-present
- Member, IEEE 2018-present
- Member, Computer Science Student Advisory Council 2018-present

VOLUNTEER ACTIVITIES

- Participant, Keep Putnam County Beautiful – Clean Commission 2018

- Volunteer and Substitute Mentor, The Governor's School for Emerging Technologies Summer,2017
- Volunteer, Integrating Parallel and Distributed Computing in Introductory Programming Classes (iPDC) Summer,2016

Last update: Nov 14, 2018.