CURRICULUM VITAE
Sheikh Rabiul Islam
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EDUCATION

- **Ph.D.** (candidate) in Computer Science, *Tennessee Tech University, TN, USA.*   2015 -

  Selected coursework: Machine Learning, Data Mining, Big Data, Anomaly and Intrusion   Spring,2020
  Detection, Intelligent Information Systems, Learning Theory, and Parallel Programming.

- **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

- Interpretable and explainable Artificial Intelligence
- Data Mining and Big Data
- Predictive Modeling in Finance and Cyber Security
- Anomaly or Fraud Detection

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 on improving   2018-present
  interpretability and explainability of Artificial Intelligence based complex models.

- *Advanced Short-Term Research Intern*, Oak Ridge National Laboratory (ORNL), USA: Worked   Summer,2018
  on an automated and generalized malware detection technique from host logs.

- *Graduate Teaching Assistant*, Tennessee Tech University: Worked on different research and   2015-2018
  software development project. Also, instructed some undergraduate labs (C++, Database).

- Worked independently and collaboratively in multiple software development projects during   2011-2015
  my four years of fulltime job in two different telecommunication company in Bangladesh.

AWARD

- Ivanhoe Fellowship   2017
- Student Travel Award, ACM SIGKDD   2019

PUBLICATIONS

2019

- **Sheikh Rabiul Islam,** William Eberle, Sid Bundy, and Sheikh Khaled Ghafoor , "Infusing domain knowledge in AI-based "black box" models for better explainability with application in bankruptcy prediction*", KDD 2019, Workshop: Anomaly Detection in Finance*. — Conference Paper

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 (ICCDA'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: July 17, 2019.