

CURRICULUM VITAE

RABIUL ISLAM JONY

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Education:

October, 2021(excpt)	PhD in Data Science
University	Queensland University of Technology
Thesis	Multimodal Data Fusion Using Machine Learning for Environmental Monitoring
Synopsis	Fusion of Social media image and text data with remote sensing satellite image for flood detection and real-time mapping using machine learning
Keywords	Data Fusion, Machine Learning, Backpropagation, Multispectral Satellite image, Social media Image Classification, Text Classification, Ensemble Classifier, Flood detection
2014	M.Sc. (Tech.) in Communications Engineering
University	School of Electrical Engineering, Aalto University, Finland
Thesis	Preprocessing solutions for Telecommunication specific Big Data use cases
2008	B.Sc. in Electrical and Electronic Engineering
University	Islamic University of Technology (IUT), Bangladesh

Research Publications:

1. **Rabiul Islam Jony**, Alan Woodley, "Multimodal Data Fusion of Remote sensing and Social media for Natural Disaster Detection and Assessment" in *In special issue of Remote Sensing, entitled "Multi-Sensor Fusion Technology in Remote Sensing: Datasets, Algorithms and Applications"*. MDPI (Submitted).
2. **Rabiul Islam Jony**, Alan Woodley, "Flood Detection in Social media Using Multimodal fusion on Multilingual Dataset" in *The International ACM SIGIR conference on Research and Development in Information Retrieval*, online, July 21-25, 2021 (Submitted).
3. **Rabiul Islam Jony**, Alan Woodley, "Flood Detection in Twitter Using a Novel Learning Method for Neural Networks" in *The Flood-related Multimedia Task at MediaEval 2020*, online, 2020.
4. **Rabiul Islam Jony**, Alan Woodley, Dimitri Perrin, "Fusing Visual Features and Metadata to Detect Flooding in Flickr Images" in *2020 Digital Image Computing: Techniques and Applications (DICTA)*. IEEE, Melbourne, 2020.
5. **Rabiul Islam Jony**, Alan Woodley, Dimitri Perrin, "Flood detection in Social Media Images using Visual features and Metadata " in *2019 Digital Image Computing: Techniques and Applications (DICTA)*. IEEE, Perth, 2019.
6. **Rabiul Islam Jony**, Alan Woodley, Dimitri Perrin, Aishvarya Raj, "Ensemble Classification Technique for Water Detection in Satellite Images," in *2018 Digital Image Computing: Techniques and Applications (DICTA)*. IEEE, Canberra, 2018.
7. **Rabiul Islam Jony**, Rakibul Islam Rony, Abiduzzaman Rahat, and Musfiqur Rahman, "Big Data Characteristics, Value Chain and Challenges," in *1st International Conference on Advanced Information and Communication Technology (ICAICT)*, Chittagong, 2016.
8. **Rabiul Islam Jony**, Nabeel Mohammed, Ahsan Habib, Sifat Momen, and Rakibul Islam Rony, "An evaluation of data processing solutions considering preprocessing and "special" features," in *2015 11th International Conference on Signal-Image Technology & Internet-Based Systems*, Bangkok, 2015, pp. 224-231.
9. **Rabiul Islam Jony**, Ahsan Habib, Nabeel Mohammed, and Rakibul Islam Rony, "Big Data Use Case Domains for Telecom Operators," in *2015 IEEE International Conference on Smart City/SocialCom/SustainCom together with DataCom 2015 and SC2 2015*, Chengdu, 2015, pp. 850-855

Recent Projects:

- Design and development of a novel Backpropagation method for neural networks on TensorFlow.
- Feature-level and decision fusion of Satellite image and Social media data using machine learning
- Design and development of transfer learning method for classification and real-time flood mapping
- Design and development of Social media image classifier using CNNs in Keras.
- Design and development of Social media text classifier using NLP.
- Design and development of multimodal data fusion method (Image and Text form Social media).
- Multispectral satellite image classification using Ensemble classifier (SVM, RF, MLC, LR).

Achievements & Scholarships:

Name	Research Topic	Duration
Global Talent Individual, Australian Government	Data Science	May, 2020
DAAD Scholarship for Research Internship at KIT	Multimodal Big Data Fusion in Remote Sensing for environmental monitoring	May, 2019-Aug, 2019
QUT Postgraduate Research Award (QUTPRA)	Multimodal Big Data Fusion in Remote Sensing for environmental monitoring	June, 2017-current
Research Assistantship	Preprocessing solutions for Telecommunication specific Big Data Use cases	April, 2013-September, 2013
OIC Scholarship	Bachelor of Science in Electrical and Electronic Engineering	December, 2004-December 2008

Work Experience:

June, 2017- current	Postgraduate Researcher
Employer	School of Computer Science, Queensland University of Technology
July, 2019- Dec, 2020	Sessional Academic, School of Electrical Engineering and Computer Science
Employer	Queensland University of Technology
May, 2019-Aug, 2019	Research Fellow
Employer	Karlsruhe Institute of Technology, Germany
Sep, 2014-May, 2017	Senior Lecturer, Department of Electronics and Telecommunication Engineering
Employer	University of Liberal Arts Bangladesh
Sep, 2014-Jan, 2015	Adjunct Lecturer
Employer	East West University, Bangladesh
June, 2014-Sep, 2014	Lecturer
Employer	Southeast University, Bangladesh
Apr, 2013- Sep, 2013	Research Assistant
Employer	Aalto University, Finland
Feb, 2011-Oct, 2011	RF Engineer
Employer	Banglalion Communication Ltd, Bangladesh
Jun, 2009-Jan, 2011	Lecturer
Employer	World University of Bangladesh

Key Data Science Skills:

- Python
- TensorFlow
- Neural Networks
- Decision Tree learning
- KNIME
- Tableau
- Predictive Modelling
- Machine learning
- Keras
- NLP
- RapidMiner
- Orange
- Text mining
- GIS
- Data Fusion
- Scikit-learn
- SQL
- Deep learning
- Jupyter
- Random Forest
- ArcMap

Key Interpersonal Skills:

- Leadership
- Brave
- Problem solving
- Team player
- Presentation expert
- Positive attitude
- Quick learner
- Communication
- Self confidence

Key Questions and Answers:

Question	Answer
Am I legally authorized to work in Australia?	Yes, I am a Permanent Resident
Will I require visa sponsorship	No
Visa Subclass	858
Notice Period	Available immediately

Voluntary & Extra-Curricular activities:

- Program Committee Member and Peer Reviewer of *International IEEE Workshop on “BIG DATA meets CLOUD and VIRTUALIZED ENVIRONMENT (BigCVEn), 2015-2016.*
- President, Queensland University of Technology Bangladeshi Student Association (QUTBA), 2019-20.
- Reviewer, IEEE Access
- Member, QUT Centre for Data Science
- Secretary, Queensland University of Technology Bangladeshi Student Association (QUTBA), 2018-19
- Secretary, Science and Engineering Faculty Higher Degree Research Student Society, QUT, 2018-19
- Representative School of Electrical Engineering and Computer Science, HDR student society, QUT
- Former department coordinator, dept. of Electronics and Telecommunication Engineering, ULAB
- Member, QUT Badminton, Youth Connect Cricket Team, QLD

References:

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