Shafiq R. Joty
Curriculum Vitæ (November 2, 2018)

Address	Block N4, 2c-111
	NTU-NLP Group
	School of Computer Science and Engineering (SCSE)
	Nanyang Technological University (NTU)
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WWW	https://raihanjoty.github.io/
Nationality	**Canadian**
h-index	**19** (Google Scholar)
i10-index	**35** (Google Scholar)

RESEARCH INTERESTS

- Natural Language Processing
    - Discourse Analysis (Discourse parsing, Coherence models, Topic models)
    - Multi-lingual and multi-modal NLP (Machine Translation, Image Captioning)
    - NLP Applications (Question answering, Summarization, Sentiment analysis)

- Machine Learning & Data Science
    - Deep learning, Representation learning
    - Probabilistic graphical models
    - Medical informatics, Social computing

PROFESSIONAL EMPLOYMENTS

Assistant Professor 2017-present
Nanyang Technological University (NTU), Singapore

Research Scientist 2014-2017
Qatar Computing Research Institute, Doha, Qatar

Research & Teaching Assistant 2006-2013
University of British Columbia
University of Lethbridge

Research Intern 2010
Microsoft Research

Lecturer 2005-2006
Islamic University of Technology, Dhaka, Bangladesh

EDUCATION

Ph.D. (Computer science)   2008-2013
University of British Columbia (UBC), Vancouver, Canada
  "Discourse analysis of asynchronous conversations"
  Thesis advisors: Giuseppe Carenini & Raymond T. Ng
  Internal committee members: Nando de Freitas (now at Oxford/DeepMind) & Rachel Pottinger
  External committee members: Carolyn P. Rosé (CMU) & Amanda Stent (Yahoo! Research)

M.Sc. (Computer science)   2006-2008
University of Lethbridge (UofL), Alberta, Canada
  "Answer Extraction for Simple and Complex Questions"
  Thesis advisor: Yllias Chali
  Other committee members: Sajjad Zahir, Howard Cheng & Giuseppe Carenini (external)

B.Sc. (Computer science)   2001-2005
Islamic University of Technology (IUT), Dhaka, Bangladesh
  CGPA: 4.97/5.00 (2nd in the class)

MAJOR HONORS AND AWARDS

- NSERC Alexander Graham Bell Canada Graduate Scholarship[1] (CGS-D)
  $2010 - 2012$ $35,000$ CAD/Year

- Four Year Fellowship (UBC)
  $2010 - 2013$ $18,000$ CAD/Year

- Faculty of Science Graduate Studies Award (UBC)
  $2010 - 2013$ $7,200$ CAD/Year

- Nominated for MIT Technology Review's Innovators Under 35 (Asia) $2017 - 2018$

- Microsoft Research Excellent Intern, 2010

- Nomination for Governor General Gold Medal for Best MSc. Thesis (UofL), 2008

- David R. Cheriton Scholarship, University of Waterloo, 2008 [Declined]

- FS Chia Ph.D. Scholarship, University of Alberta, 2008 [Declined]

- First class 2nd in BSc, 5th in higher secondary (HSC) & 11th in secondary (SSC) merit lists

TEACHING EXPERIENCE

Instructor, Nanyang Technological University   2017-

- *Year 2018 - 2019:*
  - *(i) Term 1: Artificial Intelligence to COPACE (Lecture, Lab, & Tutorial)*
  - *(ii) Term 1: Data Structures (Tutorial & Lab)*

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[1]This award is given only to the top-ranked PhD students across Canada.

- **Year 2017 - 2018:**
  - (i) *Term 1: Data Structures (Tutorial & Lab)*
  - (ii) *Term 2: Artificial Intelligence (Lecture, Lab, & Tutorial)*

Machine Learning & Data Mining Tutorial ([link](#) to the lectures)   2015-2016

- *Gave 12 lectures to the scientists at QCRI on ML models: simple discriminative/generative models, latent variable models, directed/undirected graphical models, deep neural networks.*

Teaching Assistant, University of British Columbia   2008-2013

- *Courses TAed: Grad NLP, Grad/Ugrad AI, Object Oriented Programming, Intro. to Comp.*

Teaching Assistant, University of Lethbridge   2006-2008

- *Courses TAed: Introduction to Computers.*

Lecturer, Islamic University of Technology   2005-2006

- *Courses Taught: Theory of computation, UNIX prog., Systems prog., OOP.*

IMPACT AND VISIBILITY

- [Discourse Parser for English](#)
  – [Demo](#) – [Source Code](#) – [Evaluation metric](#)

- [Neural Coherence Model for Monologue and Conversations](#)
  – [Source Code](#)

- [Neural Generic Text Segmenter](#)
  – [Source Code](#)

- [Discourse-informed Sen2Vec](#)
  – [Source Code & Data](#)

- [Speech act recognizer for synchronous and asynchronous conversations](#)
  – [Source Code](#) – [Dataset](#)

- [Community Question Answering System \[Joint work with MIT\]](#)
  – [Deployed system](#) – [Demo](#) – [Media coverage](#)

- [Topic Segmenter & Labeler for Asynchronous Conversations](#)
  – [Source Code and datasets](#)

- [Deep Learning for Crisis Computing](#)
  – [Source Code](#)

- Recurrent Neural Models for Fine-grained Opinion Analysis
  – Source Code

- Neural Domain Adaptation Model for Machine Translation
  – Source Code (inside Moses)

- Discourse-based Evaluation Metric for Machine Translation
  – Source Code

- The BC3: British Columbia Conversation Corpora
  – Datasets and annotation framework

PEER-REVIEWED JOURNAL PAPERS

1. **Shafiq Joty** and Tasnim Mohiuddin, "Modeling Speech Acts in Asynchronous Conversations: A Neural-CRF Approach.", *Computational Linguistics (Special Issue on Language in Social Media)* **Accepted**, (2018).

2. **Shafiq Joty**, Francisco Guzmán, Lluís Màrquez, and Preslav Nakov., "Discourse Structure in Machine Translation Evaluation.", *Computational Linguistics.* **43:4**, 683–722 (Dec, 2017).

3. **Shafiq Joty**, Nadir Durrani, Hassan Sajjad, and Ahmed Abdelali., "Domain Adaptation Using Neural Network Joint Model.", *Journal of Computer Speech and Language (Special Issue on Deep Learning for Machine Translation).* **45:C; csl.2016.12.006**, 161–179 (Sep, 2017).

4. Francisco Guzmán, **Shafiq Joty**, Lluís Màrquez, and Preslav Nakov., "Machine Translation Evaluation with Neural Networks.", *Journal of Computer Speech and Language (Special Issue on Deep Learning for Machine Translation).* **45:C; csl.2016.12.005**, 180–200 (Sep, 2017).

5. Aarti Sathyanarayana, **Shafiq Joty**, Luis Fernandez-Luque, Ferda Ofli, Jaideep Srivastava, Ahmed Elmagarmid, Shahrad Taheri, and Teresa Arora., "Sleep Quality Prediction From Wearable Data Using Deep Learning", *JMIR Mhealth Uhealth (JMU)* **(4(4):e125)**, JMIR (2016).

6. **Shafiq Joty**, Giuseppe Carenini and Raymond Ng, "CODRA: A Novel Discriminative Framework for Rhetorical Analysis.", *Computational Linguistics.* **41:3**, 385–435, MIT press (2015).

7. **Shafiq Joty**, Giuseppe Carenini and Raymond Ng, "Topic Segmentation and Labeling in Asynchronous Conversations.", *Journal of AI Research.* **47**, 521-573 (2013).

8. Yllias Chali, Sadid Hasan and **Shafiq Joty**, "Improving graph-based random walks for complex question answering using syntactic, shallow semantic and extended string subsequence kernels.", *Information Processing and Management.* **47:6**, 843–855, Elsevier (2011).

9. Yllias Chali, **Shafiq Joty** and Sadid Hasan, "Complex Question Answering: Unsupervised Learning Approaches and Experiments.", *Journal of AI Research.* **35**, 1-47 (2009). (I was a co-lead author of this paper.)

PAPERS UNDER REVIEW

1. Phi Xuan Nguyen and **Shafiq Joty**., "Phrase-Based Attentions", *Under review as a conference paper at* **ICLR 2019**, (2019).

PEER-REVIEWED CONFERENCE PAPERS [BY YEAR]

2019

1. Karan Aggarwal, **Shafiq Joty**, Luis Fernandez-Luque, and Jaideep Srivastava., "Adversarial Unsupervised Representation Learning for Activity Time-Series", *In Thirty-Third AAAI Conference on Artificial Intelligence* (**AAAI-2019**), Honolulu, Hawaii (to appear).

2018

1. **Shafiq Joty**, Giuseppe Carenini, Raymond Ng, and Gabriel Murray., "Discourse Processing and Its Applications in Text Mining", *In 18th IEEE International Conference on Data Mining: Tutorial* (**ICDM-2018 Tutorial**), Singapore (2018 (to appear)).

2. Gabriel Murray, **Shafiq Joty**, and Giuseppe Carenini., "NLP for Conversations: Sentiment, Summarization, and Group Dynamics.", *In Proceedings of the 27th International Conference on Computational Linguistics: Tutorial Abstracts* (**COLING-2018 Tutorial**), pages 1-4, Santa Fe, New Mexico, USA (2018).

3. **Shafiq Joty**, Lluís Màrquez and Preslav Nakov., "Joint Multitask Learning for Community Question Answering Using Task-Specific Embeddings.", *In Proceedings of the Conference on Empirical Methods in Natural Language Processing* (**EMNLP-2018**), pages x-x, Brussels, Belgium (2018).

4. **Shafiq Joty**, Tasnim Mohiuddin, and Dat Nguyen (equal contributions), "Coherence Modeling of Asynchronous Conversations: A Neural Entity Grid Approach", *In Proceedings of the 56th Annual Meeting of the Association for Computational Linguistics* (**ACL'18**), Melbourne, Australia (2018).

5. Firoj Alam, **Shafiq Joty**, and Muhammad Imran., "Domain Adaptation with Adversarial Training and Graph Embeddings", *In Proceedings of the 56th Annual Meeting of the Association for Computational Linguistics* (**ACL'18**), Melbourne, Australia (2018).

6. Jiuxiang Gu, **Shafiq Joty**, Jianfei Cai, and Gang Wang, "Unpaired Image Captioning by Language Pivoting", *In Proceedings of the European Conference on Computer Vision* (**ECCV-2018**), Munich, Germany (2018).

7. Qing Li, Qingyi Tao, **Shafiq Joty**, Jianfei Cai and Jiebo Luo, "VQA-E: Explaining, Elaborating, and Enhancing Your Answers for Visual Questions", *In Proceedings of the VQA-E: Explaining, Elaborating, and Enhancing Your Answers for Visual Questions* (**ECCV-2018**), Munich, Germany (2018).

8. Jiuxiang Gu, Jianfei Cai, **Shafiq Joty**, Li Niu, and Gang Wang, "Look, Imagine and Match: Improving Textual-Visual Cross-Modal Retrieval with Generative Models", *In Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition* (**CVPR-2018**), Salt Lake City, Utah, United States (2018).

9. Chin Yao, Kaiqi Zhao, **Shafiq Joty**, and Gao Cong, "Aspect-based Neural Recommender", *In Proceedings of the 27th ACM International Conference on Information and Knowledge Management* (**CIKM-2018**), Turin, Italy (2018).

10. Jing Li, Aixin Sun, and **Shafiq Joty**, "SegBot: A Generic Neural Text Segmentation Model with Pointer Network", *In Proceedings of the 27th International Joint Conference on Artificial Intelligence and the 23rd European Conference on Artificial Intelligence* (**IJCAI-ECAI-2018**), Stockholm, Sweden (2018).

11. Karan Aggarwal, Swaraj Khadanga, **Shafiq Joty**, Louis Kazaglis, and Jaideep Srivastava, "A Structured Learning Approach with Neural Conditional Random Fields for Sleep Staging", *In Proceedings of the IEEE Big Data Conference 2018* (**IEEE Big Data-2018**), Seattle, USA (2018).

12. Muhammad Ebraheem, Saravanan Thirumuruganathan, **Shafiq Joty**, Mourad Ouzzani and Nan Tang, "Distributed Representations of Tuples for Entity Resolution", *In Proceedings of the Forty-fourth International Conference on Very Large Data Bases* (**VLDB-2018**), Rio de Janeiro, Brazil (2018).

13. Firoj Alam, **Shafiq Joty**, and Muhammad Imran, "Graph Based Semi-supervised Learning with Convolutional Neural Networks to Classify Crisis Related Tweets", *In Proceedings of the Twelfth International Conference on Web and Social Media* (**ICWSM-2018**), Stanford, United States (2018).

2017

1. Tanay Kumar Saha, **Shafiq Joty** and Mohammad Al Hasan., "CON-S2V: A Generic Framework for Incorporating Extra-Sentential Context into Sen2Vec.", *In Proceedings of the European Conference on Machine Learning and practice of knowledge discovery in databases* (**ECML-PKDD-2017**), Macedonia, Skopje (2017).

2. Tanay Kumar Saha, **Shafiq Joty**, Naeemul Hassan, and Mohammad Al Hasan., "Regularized and Retrofitted models for Learning Sentence Representation with Context.", *In Proceedings of the 26th ACM International Conference on Information and Knowledge Management* (**CIKM-2017**), Singapore (2017).

3. Dat Tien Nguyen and **Shafiq Joty** (co-lead author), "A Neural Local Coherence Model.", *In Proceedings of the 55th Annual Meeting of the Association for Computational Linguistics* (**ACL-2017**), pages 1320-1330, Vancouver, Canada (2017).

4. **Shafiq Joty**, Preslav Nakov and Lluís Màrquez, "Cross-language Learning with Adversarial Neural Networks.", *In Proceedings of The SIGNLL Conference on Computational Natural Language Learning* (**CoNLL-2017**), pages 226-237, Vancouver, Canada (2017).

5. Enamul Hoque, **Shafiq Joty**, Lluís Màrquez, and Giuseppe Carenini., "CQAVis: Visual Text Analytics for Community Question Answering.", *In Proceedings of the 22nd annual meeting of the intelligent user interfaces* (**IUI-2017**), pages 161-172, Limassol, Cyprus (2017).

6. Giovanni Da San Martino, Salvatore Romeo, Alberto Barron-Cedeno, Shafiq Joty, Lluís Màrquez, Alessandro Moschitti and Preslav Nakov., "Cross-Language Question Re-ranking.", *In Proceedings of the 40th International ACM SIGIR Conference on Research and Development in Information Retrieval* (**SIGIR-2017**), pages 1145-1148, Tokyo, Japan (2017).

7. Dat Tien Nguyen, Kamla Al-Mannai, **Shafiq Joty**, Hassan Sajjad, Muhammad Imran and Prasenjit Mitra., "Robust Classification of Crisis-Related Data on Social Networks using Convolutional Neural Networks.", *In Proceedings of the 11-th International AAAI Conference on Weblogs and Social Media* (**ICWSM-2017**), pages 632-635, Montreal, Canada (2017).

2016

1. **Shafiq Joty** and Enamul Hoque., "Speech Act Modeling of Written Asynchronous Conversations with Task-Specific Embeddings and Conditional Structured Models.", *In Proceedings of the 54th Annual Meeting of the Association for Computational Linguistics* (**ACL-2016**), pages 1746-1756, Berlin, Germany (2016).

2. **Shafiq Joty**, Lluís Màrquez and Preslav Nakov., "Joint Learning with Global Inference for Comment Classification in Community Question Answering.", *In Proceedings of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies* (**NAACL-2016**), pages 703-713, San Diego, USA (2016).

3. Nadir Durrani, Hassan Sajjad, **Shafiq Joty**, and Ahmed Abdelali., "A Deep Fusion Model for Domain Adaptation in Phrase-based MT.", *In Proceedings of the 26th International Conference on Computational Linguistics* (**COLING-2016**), pages 3177–3187, Osaka, Japan (2016).

4. Enamul Hoque, **Shafiq Joty**, Lluís Màrquez, Alberto Barrón-Cedeño, Alessandro Moschitti, Giovanni Da San Martino, Preslav Nakov, Salvatore Romeo and Giuseppe Carenini., "An Interactive System for Exploring Community Question Answering Forums.", *In Proceedings of the 26th International Conference on Computational Linguistics* (**COLING-2016**), pages 1-5, Osaka, Japan (2016).

2015

1. **Shafiq Joty**, Hassan Sajjad, Nadir Durrani, Kamla Al-Mannai, Ahmed Abdelali and Stephan Vogel., "How to Avoid Unwanted Pregnancies: Domain Adaptation using Neural Network Models.", *In Proceedings of the Conference on Empirical Methods in Natural Language Processing* (**EMNLP-2015**), pages 1259-1270, Lisbon, Portugal (2015).

2. **Shafiq Joty**, Alberto Barrón-Cedeño, Giovanni Da San Martino, Alessandro Moschitti, Lluís Màrquez and Preslav Nakov., "Global Thread-level Inference for Comment Classification in Community Question Answering.", *In Proceedings of the Conference on Empirical Methods in Natural Language Processing* (**EMNLP-2015**), pages 573-578, Lisbon, Portugal (2015).

3. Pengfei Liu, **Shafiq Joty**, and Helen Meng., "Fine-grained Opinion Mining with Recurrent Neural Networks and Word Embeddings.", *In Proceedings of the Conference on Empirical Methods in Natural Language Processing* (**EMNLP-2015**), pages 1433-1443, Lisbon, Portugal (2015).

4. Francisco Guzmán, **Shafiq Joty**, Lluís Màrquez, and Preslav Nakov., "Pairwise Neural Machine Translation Evaluation.", *In Proceedings of the 53rd annual meeting of the Association for Computational Linguistics* (**ACL-2015**), pages 805 -814, Beijing, China (2015).

5. Alberto Barrón-Cedeño, Simone Filice, Giovanni Da San Martino, **Shafiq Joty**, Lluis Marquez, Preslav Nakov and Alessandro Moschitti., "Thread-level Information for Comment Classification in Community Question Answering.", *In Proceedings of the 53rd annual meeting of the Association for Computational Linguistics* (**ACL-2015**), pages 687-693, Beijing, China (2015).

6. Nadir Durrani, Hassan Sajjad, **Shafiq Joty**, Ahmed Abdelali and Stephan Vogel., "Using Joint Models for Domain Adaptation in Statistical Machine Translation.", *In Proceedings of the Association for Machine Translation in the Americas* (**AMTA-2015**), Miami, USA (2015).

2014

1. **Shafiq Joty**, Alessandro Moschitti., "Discriminative Reranking of Discourse Parses Using Tree Kernels.", *In Proceedings of the Conference on Empirical Methods in Natural Language Processing* **(EMNLP-2014)**, pages 2049-2060, Doha, Qatar (2014).

2. Francisco Guzmán, **Shafiq Joty**, Lluís Màrquez, Alessandro Moschitti, Preslav Nakov and Massimo Nicosia., "Learning to Differentiate Better from Worse Translations.", *In Proceedings of the Conference on Empirical Methods in Natural Language Processing* **(EMNLP-2014)**, pages 214-220, Doha, Qatar (2014).

3. Iman Saleh, Alessandro Moschitti, Preslav Nakov, Lluís Màrquez and **Shafiq Joty**., "Semantic Kernels for Semantic Parsing.", *In Proceedings of the Conference on Empirical Methods in Natural Language Processing* **(EMNLP-2014)**, pages 436-442, Doha, Qatar (2014).

4. Francisco Guzmán, **Shafiq Joty**, Lluís Màrquez, and Preslav Nakov., "Using Discourse Structure Improves Machine Translation Evaluation.", *In Proceedings of the 52nd annual meeting of the Association for Computational Linguistics* **(ACL-2014)**, pages 687-698, Baltimore, USA (2014).

5. Iman Saleh, **Shafiq Joty**, Lluís Màrquez, Alessandro Moschitti, Preslav Nakov, Scott Cyphers and Jim Glass., "A Study of Using Syntactic and Semantic Structures for Concept Segmentation and Labeling.", *In Proceedings of the 25th International Conference on Computational Linguistics* **(COLING-2014)**, pages 193-202, Dublin, Ireland (2014).

2013

1. **Shafiq Joty**, Giuseppe Carenini, Raymond Ng and Yashar Mehdad., "Combining Intra- and Multi-sentential Rhetorical Parsing for Document-level Discourse Analysis.", *In Proceedings of the 51st Annual Meeting of the Association for Computational Linguistics.* **(ACL-2013)**, pages 486-496, Sofia, Bulgaria (2013).

2. Yashar Mehdad, Giuseppe Carenini, Raymond Ng and **Shafiq Joty**., "Towards Topic Labeling with Phrase Entailment and Aggregation.", *In Proceedings of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies.* **(NAACL-2013)**, pages 179-189, Atlanta, USA (2013).

3. Maryam Tavafi, Yashar Mehdad, **Shafiq Joty**, Giuseppe Carenini, Raymond Ng., "Dialogue Act Recognition in Synchronous and Asynchronous Conversations.", *In Proceedings of the 14th Annual Meeting of the Special Interest Group on Discourse and Dialogue.* **(SIGDIAL-2013)**, pages 117-121, Metz, France. (2013).

2012

1. **Shafiq Joty**, Giuseppe Carenini and Raymond Ng., "A Novel Discriminative Framework for Sentence-Level Discourse Analysis.", *In Proceedings of the Conference on Empirical Methods in Natural Language Processing and the Conference on Natural Language Learning.* **(EMNLP-2012)**, pages 904-915, Jeju, Korea (2012).

2011

1. **Shafiq Joty**, Giuseppe Carenini and Chin-Yew Lin., "Unsupervised Modeling of Dialog Acts in Asynchronous Conversations.", *In Proceedings of the twenty second International Joint Conference on Artificial Intelligence.* **(IJCAI-2011)**, pages 1807-1813, Barcelona, Spain (2011).

2. **Shafiq Joty**, Giuseppe Carenini, Gabriel Murray and Raymond Ng., "Supervised Topic Segmentation of Email Conversations.", *In Fifth International AAAI Conference on Weblogs and Social Media.* **(ICWSM-2011)**, pages 530-533, Barcelona, Spain (2011).

3. Nicholas FitzGerald, Giuseppe Carenini, Gabriel Murray and **Shafiq Joty**., "Exploiting Conversational Features to Detect High-Quality Blog Comments.", *In Proceedings of the Canadian Conference on Artificial Intelligence* **(CAI-2011)**, pages 122-127, St. Johns, Newfoundland (2011).

2010

1. **Shafiq Joty**, Giuseppe Carenini, Gabriel Murray and Raymond Ng., "Exploiting Conversation Structure in Unsupervised Topic Segmentation for Emails.", *In Proceedings of the Conference on Empirical Methods in Natural Language Processing and the Conference on Natural Language Learning.* **(EMNLP-2010)**, pages 388-398, Massachusetts, USA. (2010).

2009

1. Yllias Chali, Sadid Hasan and **Shafiq Joty**., "Do Automatic Annotation Techniques Have Any Impact on Supervised Complex Question Answering?", *In Proceedings of the ACL-IJCNLP 2009 Conference.* **(ACL-2009)**, pages 329-332, Suntec, Singapore. (2009).

2. Yllias Chali, Sadid Hasan and **Shafiq Joty**., "A SVM-Based Ensemble Approach to Multi-Document Summarization.", *In Proceedings of the 22nd Canadian Conference on Artificial Intelligence* **(CAI-2009)**, pages 329-332, Kelowna,Canada. (2009).

3. Yllias Chali, Sadid Hasan and **Shafiq Joty**., "Supervised Approaches to Complex Question Answering.", *In Proceedings of Conference of the Pacific Association for Computational Linguistics* **(PACLING-2009)**, pages 121-126, Sapporo, Japan. (2009).

2008

1. Yllias Chali and **Shafiq Joty**., "Selecting Sentences for Answering Complex Questions.", *In Proceedings of the Conference on Empirical Methods in Natural Language Processing* **(EMNLP-2008)**, pages 304-313, Hawaii, USA. (2008). (I was a co-lead author.)

2. Yllias Chali and **Shafiq Joty**., "Improving the Performance of the Random Walk Model for Answering Complex Questions.", *In Proceedings of the 46th Annual Meeting of the Association for Computational Linguistics: Human Language Technologies* **(ACL-2008)**, pages 9-12, OH, USA. (2008). (I was a co-lead author.)

3. Yllias Chali and **Shafiq Joty**., "Exploiting Syntactic and Shallow Semantic Kernels to Improve Random Walks for Complex Question Answering.", *In Proceedings of the 20th IEEE Int'l Conference on Tools with Artificial Intelligence* **(ICTAI-2008)**, pages 123-130, OH, USA. (2008). (I was a co-lead author.)

4. Yllias Chali and **Shafiq Joty**., "Answering Complex Questions Using Query-focused Summarization Technique.", *In Proceedings of the 20th IEEE Int'l Conference on Tools with Artificial Intelligence* **(ICTAI-2008)**, pages 131-134, OH, USA. (2008). (I was a co-lead author.)

5. Yllias Chali and **Shafiq Joty**., "Unsupervised Approach for Selecting Sentences in Query-based Summarization.", *In Proceedings of the 21st FLAIRS conference* (**FLAIRS-2007**), pages 47-52, Florida, USA. (2008). (I was a co-lead author.)

6. Gabriel Murray, **Shafiq Joty**, Giuseppe Carenini and Raymond Ng., "The University of British Columbia at TAC 2008.", *n Proceedings of the Text Analysis Conference* (**TAC-2008**), Rochester, USA. (2008).

2007

1. Yllias Chali and **Shafiq Joty**., "University of Lethbridge's Participation in DUC-2007 Main Task.", *In Proceedings of the Document Understanding Conference* (**DUC-2007**), Rochester, USA. (2007). (I was a co-lead author.)

2. Yllias Chali and **Shafiq Joty**., "University of Lethbridge's Participation in TREC-2007 Main Task.", *In Proceedings of the Sixteenth Text REtrieval Conference* (**TREC-2007**), Gaithersburg, USA. (2007). (I was a co-lead author.)

3. **Shafiq Joty** and Sadid Hasan., "Advances in Focused Retrieval: A General Review.", *In Proceedings of the 10th IEEE International Conference on Computer and Information Technology* (**ICCIT-2007**), pages 1-5, Dhaka, Bangladesh. (2007).

PEER-REVIEWED WORKSHOP PAPERS

1. Dat Nguyen, **Shafiq Joty**, Basma Boussaha, and Maarten de Rijke., "Thread Reconstruction in Conversational Data using Neural Coherence Models.", *In Proceedings of the Neu-IR 2017 SIGIR Workshop on Neural Information Retrieval* (**NeuIR'17**), Tokyo, Japan (2017).

2. Alberto Barrón-Cedeño, Giovanni Da San Martino, **Shafiq Joty**, Alessandro Moschitti, Fahad Al-Obaidli, Salvatore Romeo, Kateryna Tymoshenko and Antonio Uva., "ConvKN at SemEval-2016 Task 3: Answer and Question Selection for Question Answering on Arabic and English Fora.", *In Proceedings of the 10th International Workshop on Semantic Evaluation.* (**SemEval 2016**), San Diego, USA (2016). (2nd place in both English & Arabic subtasks of Task 3)

3. Dat Tien Nguyen, **Shafiq Joty**, Muhammad Imran, Hassan Sajjad, and Prasenjit Mitra., "Applications of Online Deep Learning for Crisis Response Using Social Media Information.", *In the 4th International Workshop on Social Web for Disaster Management (co-located with CIKM 2016),* (**SWDM 2016**), Indianapolis, USA (2016).

4. Massimo Nicosia, Simone Filice, Alberto Barrón-Cedeño, Iman Saleh, Hamdy Mubarak, Wei Gao, Preslav Nakov, Giovanni Da San Martino, Alessandro Moschitti, Kareem Darwish, Lluís Màrquez, **Shafiq Joty** and Walid Magdy., "QCRI: Answer Selection for Community Question Answering - Experiments for Arabic and English.", *In Proceedings of the 9th International Workshop on Semantic Evaluation.* (**SemEval-2015**), pages 203-209, Denver, USA (2015). (Winner in Arabic and 3rd place in English subtask of Task 3)

5. **Shafiq Joty**, Francisco Guzman, Lluis Marquez and Preslav Nakov., "DiscoTK: Using Discourse Structure for Machine Translation Evaluation.", *In Proceedings of the Ninth Workshop on Statistical Machine Translation* (**WMT-2014**), pages 402-408, Baltimore, USA (2014). (Winner of the metric task.)

6. Enamul Hoque, Giuseppe Carenini and **Shafiq Joty**., "Interactive Exploration of Asynchronous Conversations: Applying a User-centered Approach to Design a Visual Text Analytic System.", *In Proceedings of the Workshop on Interactive Language Learning, Visualization, and Interfaces* **(ILLVI-2014)**, pages 45-52, Baltimore, USA. (2014).

7. Wei Jin, **Shafiq Joty**, Giuseppe Carenini and Raymond Ng., "Detecting Informative Blog Comments using Tree Structured Conditional Random Fields.", *The Pacific Northwest Regional NLP Workshop* **(NWNLP-2012)**, Microsoft Research, Redmond, USA. (2012).

8. **Shafiq Joty**, Giuseppe Carenini, Gabriel Murray and Raymond Ng., "Finding Topics in Emails: Is LDA enough?", *NIPS-2009 workshop on applications for topic models: text and beyond.* **(NIPS-2009)**, Whistler, Canada (2009).

9. Yllias Chali and **Shafiq Joty**., "Word Sense Disambiguation Using Lexical Cohesion.", *In Proceedings of the 4th International Conference on Semantic Evaluations* **(SemEval-2007)**, pages 476-479, Prague, Czech Republic. (2007).

RESEARCH GRANTS

1. Language Understanding and Generation with Deep Neural Networks., "Start Up-Grant (NTU, Singapore)", (Jul, 2017 –).

2. A Malay-English Translation System., "SCSE demo fund (NTU, Singapore)", (Jan, 2018 – Jun, 2018).

3. Multilingual Language Processing Using Generative Adversarial Autoencoders., "Tier-1 program (NTU, Singapore)", (Mar, 2018 -).

TUTORIALS AT INTERNATIONAL CONFERENCES

1. Discourse Processing and Its Applications in Text Mining, **Shafiq Joty**, Giuseppe Carenini, Raymond Ng, and Gabriel Murray, **ICDM-2018**, Singapore. (To Appear)

2. NLP for Conversations: Sentiment, Summarization, and Group Dynamics, Gabriel Murray, **Shafiq Joty**, and Giuseppe Carenini., **COLING-2018**, Santa Fe, New Mexico. (Slides)

INVITED TALKS

1. "Deep Learning for Multilingual and Multimodal Processing", Industry-NTU Dialogue: AI Research, Innovation and Talent, NTU, Singapore, Sep. 2018

2. "Discourse Analysis and Its Applications", Gwangju Institute of Science and Technology (GIST), South Korea, Dec. 2017

3. "How Computational Linguistics can help Computational History", Johannesburg Institute for Advanced Study (JIAS), Johannesburg, South Africa, Nov. 2017

4. "Discourse Analysis and Its Applications", National University of Singapore (NUS), Singapore, Oct. 2017

5. "Discourse Analysis and Its Applications", Institute for Infocomm Research A*Star, Singapore, Sep. 2017

6. "Structured Predictions for Discourse Analysis and Applications in Natural Language Processing", Singapore University of Technology and Design (SUTD), Singapore, Sep. 2017

7. "Structured Predictions for Discourse Analysis and Applications in Natural Language Processing", University of Calgary, Calgary, Canada, Mar. 2017

8. "Structured Predictions for Discourse Analysis and Applications in Natural Language Processing", University of Waterloo, Waterloo, Canada, Feb. 2017

9. "Structured Predictions for Discourse Analysis and Applications in Natural Language Processing", Nanyang Technological University (NTU), Singapore, Nov. 2016

10. "Introduction to Machine Learning", Global Entrepreneurship Week, Doha, Nov. 2015

11. "Discourse Analysis & its Applications", Chinese University of Hong Kong., Oct. 2015

12. "CODRA: A Complete Discriminative Framework for Rhetorical Analysis", Universite Paul Sabatier, Toulouse, France., Sep. 2014

13. "Discourse Analysis of Asynchronous Conversations", University of British Columbia, Vancouver, Canada., Dec. 2013

14. "Intra- and Multi-sentential Rhetorical Parsing for Document-level Discourse Analysis", NSERC Business Intelligence Network AGM, IBM Software Labs, Canada., Nov. 2012

15. "A Novel Discriminative Framework for Sentence-Level Discourse Analysis", NW-NLP workshop, Microsoft Research Redmond., May, 2012

16. "Discourse Analysis of Asynchronous Conversations (e.g., emails, blogs)", Business Intelligence (BI) Workshop-NSERC BIN Watson, IBM Watson center, Feb, 2012

17. "Discourse Analysis of Asynchronous Conversations (e.g., emails, blogs)", UBC Social Network Group, Feb, 2012

18. "Unsupervised Modeling of Dialog Acts in Asynchronous Conversations", UBC Laboratory for Computational Intelligence (LCI) Forum Talk, Apr, 2011

19. "Topic and Dialog Act Modeling of Asynchronous Conversations", Microsoft Research Asia, Nov, 2010

20. "What are they talking about?" Finding Topics in Email Conversations", UBC Laboratory for Computational Intelligence Forum (LCI) Talk, Feb, 2010

21. "Answering Simple and Complex Questions", University of Alberta NLP Group, Jan, 2008

SERVICE

1. Grant Proposal Reviewing: NSERC Canada Discovery Grant [2018].

2. Reviewing: TACL [2015-2019], ACL/EMNLP/SigDial/*SEM/NAACL/IJCAI/IUI/KDD.

3. Associate VP position in the Bangladesh Students' Association, UBC (2009-2010).

4. Organizing committee member of EMNLP-2014, ICCIT-2005.

PROFESSIONAL MEMBERSHIP

- ACL, SIGDAT, SIGGEN, SIGSEM, ACM, IEEE.

CURRENT PHD STUDENTS

1. Tasnim Mohiuddin [Jan, 2018 - Present]

2. Prathyusha Jwalapuram [Aug, 2018 - Present]

3. Nguyen Thanh Tung [Aug, 2018 - Present] [Co-supervision. with Dr. Xiaoli (A star)]

4. Jiuxiang Gu [Nov, 2017 - Present]. [Co-supervision with Prof. Cai Jianfei]

PREVIOUSLY MENTORED STUDENTS

1. Sameer Khurana [May, 2018 - Aug, 2018]. (Now PhD student at MIT-CSAIL, USA)

2. Enamul Hoque [Feb, 2016 - May, 2016] (Now Asst. Prof. at York Univ, Canada)

3. Aarti Sathyanarayana [July, 2016 - Dec, 2016] (Now Postdoc at Harvard Medical, USA)

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